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TERMINAL (ENTER 1, 2, 3, OR ?):2

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NEWS 1 Web Page URLs for STN Seminar Schedule - N. America  
NEWS 2 "Ask CAS" for self-help around the clock  
NEWS 3 May 12 EXTEND option available in structure searching  
NEWS 4 May 12 Polymer links for the POLYLINK command completed in REGISTRY  
NEWS 5 May 27 New UPM (Update Code Maximum) field for more efficient patent  
SDIS in CAPLUS  
NEWS 6 May 27 CAPLUS super roles and document types searchable in REGISTRY  
NEWS 7 Jun 28 Additional enzyme-catalyzed reactions added to CASREACT  
NEWS 8 Jun 28 ANTE, AQUALINE, BIOENG, CIVILENG, ENVIROENG, MECHEG,  
and WATER from CSA now available on STN(R)  
NEWS 9 Jul 12 BELSTEIN enhanced with new display and select options,  
resulting in a closer connection to BABS  
NEWS 10 Jul 30 BELSTEIN on STN workshop to be held August 24 in conjunction  
with the 228th ACS National Meeting  
NEWS 11 AUG 02 IFLPAT/IFLUDR/IFICDB reloaded with new search and display  
fields  
NEWS 12 AUG 02 CAPLUS and CA patent records enhanced with European and Japan  
Patent Office Classifications  
NEWS 13 AUG 02 STN User Update to be held August 22 in conjunction with the  
228th ACS National Meeting  
NEWS 14 AUG 02 The Analysis Edition of STN Express with Discover!  
(Version 7.01 for Windows) now available  
NEWS 15 AUG 04 Pricing for the Save Answers for SciFinder Wizard within  
STN Express with Discover! will change September 1, 2004  
NEWS 16 AUG 27 BIOCOMMERCE: Changes and enhancements to content coverage  
BIOTECHABS/BIOTECHDS: Two new display fields added for legal  
status data from INPADOC  
NEWS 18 SEP 01 INPADOC: New family current-awareness alert (SDI) available  
NEWS 19 SEP 01 New pricing for the Save Answers for SciFinder Wizard within  
STN Express with Discover!  
NEWS 20 SEP 01 New display format, HITSTR, available in WPIDS/WPINDEX/WPIX

NEWS EXPRESS JULY 30 CURRENT WINDOWS VERSION IS V7.01. CURRENT  
MACINTOSH VERSION IS V6.0C(ENG) AND V6.0C(CTP),  
AND CURRENT DISCOVER FILE IS DATED 11 AUGUST 2004  
NEWS HOURS STN Operating Hours Plus Help Desk Availability  
NEWS INTER General Internet Information  
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NEWS PHONE Direct Dial and Telecommunication Network Access to STN  
NEWS WWW CAS World Wide Web Site (general information)

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FILE 'HOME' ENTERED AT 10:43:22 ON 08 SEP 2004

=> FILE REG SINCE FILE TOTAL  
COST IN U.S. DOLLARS ENTRY SESSION  
FULL ESTIMATED COST 0.21 0.21

FILE 'REGISTRY' ENTERED AT 10:43:34 ON 08 SEP 2004  
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STRUCTURE FILE UPDATES: 7 SEP 2004 HIGHEST RN 741217-26-5  
DICTIONARY FILE UPDATES: 7 SEP 2004 HIGHEST RN 741217-26-5

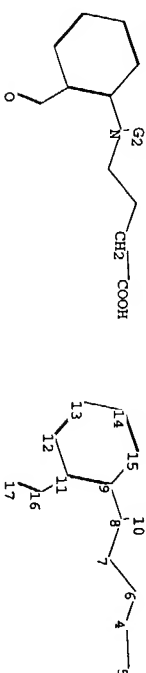
TSCA INFORMATION NOW CURRENT THROUGH MAY 21, 2004

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Experimental and calculated property data are now available. For more  
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to the file summary sheet on the web at:  
<http://www.cas.org/ONLINE/DBSS/Registryss.html>

=> uploading C:\Program Files\Stnexp\Queries\DIHYDROAZEPINE.str



chain nodes : 4 5 10 16 17  
ring nodes : 9 11 12 13 14 15  
ring/chain nodes : 6 7 8  
chain bonds : 4-5 4-6 6-7 7-8 8-9 8-10 11-16 16-17  
ring bonds : 9-11 9-15 11-12 12-13 13-14 14-15  
exact/norm bonds : 7-8 8-9 8-10 16-17  
exact bonds : 4-5 4-6 6-7 11-16  
normalized bonds : 9-11 9-15 11-12 12-13 13-14 14-15

G1,N,P,X,CF2,CF3,CC12,CC13,CBR2,CBR3,CI2,CI3,CN,NO2,CY

10/070329  
UPDATED STN  
SEARCH TRANSCRIPT

G2:C.S

Match level:

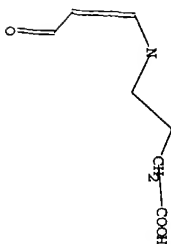
4:CLASS 5:CLASS 6:CLASS 7:CLASS 8:CLASS 9:CLASS 10:CLASS 11:Atom 12:Atom  
13:Atom 14:Atom 15:Atom 16:CLASS 17:CLASS

L1 STRUCTURE UPLOADED

=> D L1

L1 HAS NO ANSWERS

STR



G1 N,P,X,CF2,CF3,Cl2,CCl3,CH2,CH2,CH2,Cl2,Cl3,CN,NO2,Cy  
G2 C,S

Structure attributes must be viewed using STN Express query preparation.

=> S L1

SAMPLE SEARCH INITIATED 10:43:54 FILE 'REGISTRY'  
SAMPLE SCREEN SEARCH COMPLETED - 23672 TO ITERATE

4.2% PROCESSED 1000 ITERATIONS  
INCOMPLETE SEARCH (SYSTEM LIMIT EXCEEDED)  
SEARCH TIME: 00.00.01

0 ANSWERS

FULL FILE PROJECTIONS: ONLINE \*\*INCOMPLETE\*\*  
BATCH \*\*COMPLETE\*\*  
PROJECTED ITERATIONS: 464240 TO 482640  
PROJECTED ANSWERS: 0 TO 0

L2 0 SEA SSS SAM L1

=> S L1 SSS FULL

FULL SEARCH INITIATED 10:44:10 FILE 'REGISTRY'  
FULL SCREEN SEARCH COMPLETED - 474700 TO ITERATE

7 ANSWERS

84.3% PROCESSED 400000 ITERATIONS  
INCOMPLETE SEARCH (SYSTEM LIMIT EXCEEDED)  
SEARCH TIME: 00.00.07

FULL FILE PROJECTIONS: ONLINE \*\*INCOMPLETE\*\*  
BATCH \*\*COMPLETE\*\*  
PROJECTED ITERATIONS: 474700 TO 474700  
PROJECTED ANSWERS: 7 TO 16

L3 7 SEA SSS FULL L1

=> FILE CAPLUS  
COST IN U.S. DOLLARS

SINCE FILE

TOTAL

FULL ESTIMATED COST

ENTRY SESSION  
155.42 155.63

FILE 'CAPLUS' ENTERED AT 10:44:26 ON 08 SEP 2004  
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FILE COVERS 1907 - 8 Sep 2004 VOL 141 ISS 11  
FILE LAST UPDATED: 7 Sep 2004 (20040907/ED)

This file contains CAS Registry Numbers for easy and accurate substance identification.

=> S L3  
L4 2 L3

=> D 1-2 IBIB ABS HITSTR

L4 ANSWER 1 OF 2 CAPLUS COPYRIGHT 2004 ACS ON STN  
ACCESSION NUMBER: 2004:331762 CAPLUS  
DOCUMENT NUMBER: 140:339635  
TITLE: Preparation of GABA analogs as prodrugs  
INVENTOR(S): Gallop, Mark A.; Cundy, Kenneth C.; Zhou, Cindy X.;  
Olu, Fayang G.; Yao, Fenmei; Xiang, Jia-Ning; Ollmann,  
Ian R.

PATENT ASSIGNEE(S): USA  
SOURCE: U.S. Pat. Appl. Publ., 52 pp., Cont.-in-part of U.S.  
Ser. No. 171,485.

DOCUMENT TYPE: Patent  
LANGUAGE: English  
FAMILY ACC. NUM. COUNT: 4  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2004077553	A1	20040422	US 2002-313825	20021206
US 2003176398	A1	20030918	US 2002-171485	20020611
US 2004006132	A1	20040108	US 2003-459242	20030610
WO 2003104184	A1	20031218	WO 2003-US18495	20030611
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GE, GR, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MM, MX, MY, NI, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SI, TJ, TM, TN, TR, TT, TZ, UA, UG, UZ, VC, VN, YU, ZA, ZM, ZW, AA, AZ, BY, KG, KZ, MD, RM, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TG, UG, ZM, ZW, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GN, GT, GQ, GM, ML, MR, NE, SN, TD, TG				
WO 2004052844	A1	20040624	WO 2003-US38703	20031205



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 RM: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, SI, BG, BF, BI, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG  
 US 2003083382 A1 20030501 US 2002-170127 20020611  
 EP 1404324 A2 20040407 EP 2002-744314 20020611  
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 US 2001-298514P P 20010614  
 US 2002-366090P P 20020319  
 WO 2002-US18689 W 20020611

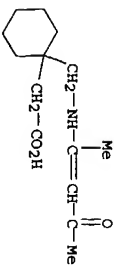
PRIORITY APPLN. INFO.:

OTHER SOURCE(S): MARPAT 138:24958  
 AB The invention provides produgs of GABA analogs and pharmaceutical compns. containing these produgs for treating or preventing common diseases and/or disorders. Comps. of formulas R1(X-CHR2CO)NHC(R3)CR4R5CHR6CO-Y-R7 (n = 0 or 1; X = O or an imino group; Y = O or S; R1 = (thio)acyl or phosphoryl groups, alkylthio, arylthio, etc.; R2-R7 = H, (cyclo)alkyl, aryl, etc.; CR4R5 = (un)substituted cyclo(hetero)alkyl, bridged cycloalkyl), R2OR21C: (NCHR2CO)t(X-CHR2CO)NHC(R3)CR4R5CHR6CO-Y-R7 (t, n = 0 or 1; R20, R21 = groups similar to R4 and R5), and R1(X-CHR2CO)NHC(R3)CR4R5CHR6CO-R (R2 = CR2R230 (to form a lactone), where R22, R23 are groups similar to R4 and R5) are claimed. Thus, 1-[[[(pivaloyloxy)methoxy]carbonyl]amino]methyl]-1-cyclohexanecarboxylic acid (51) was prepared by acylation of gabapentin with p-nitrophenyl pivaloyloxymethyl carbonate (preparation given). In vitro Caco-2 cellular permeabilities of the produgs were determined, with compound

51 having Papp (apical to basolateral) and Papp (basolateral to apical) values of 1.06x10-4 and 1.25x10-5 cm/s, resp.  
 IT 478297-11-9P 478297-17-5P  
 RU: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USBS (Uses)  
 (Preparation of GABA analogs as produgs)

RN 478297-11-9 CAPLUS  
 CN Cyclohexanecarboxylic acid, 1-[[[(1-methyl-3-oxo-1-butenyl)amino]methyl]-, compd. with piperidine (1:1) (9CI) (CA INDEX NAME)

CM 1  
 CRN 478297-10-8  
 CMF C14 H23 N O3

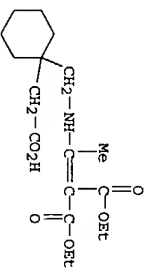


CM 2  
 CRN 110-89-4  
 CMF C5 H11 N



RN 478297-17-5 CAPLUS  
 CN Propanedioic acid, [1-[[[(1-(carboxymethyl)cyclohexyl)methyl]amino]ethylidene]-, 1,3-dieethyl ester, compd. with piperidine (1:1) (9CI) (CA INDEX NAME)

CM 1  
 CRN 478297-16-4  
 CMF C18 H29 N O6



CM 2  
 CRN 110-89-4  
 CMF C5 H11 N



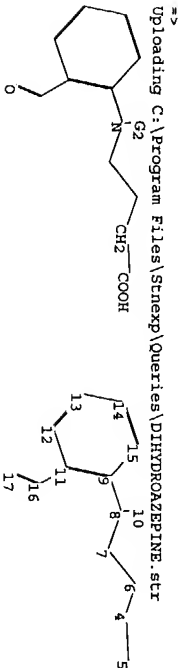
=> FILE REG  
 COST IN U.S. DOLLARS  
 FULL ESTIMATED COST  
 DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)  
 CA SUBSCRIBER PRICE  
 SINCE FILE ENTRY  
 SINCE FILE ENTRY  
 TOTAL SESSION  
 TOTAL SESSION

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 STRUCTURE FILE UPDATES: 7 SEP 2004 HIGHEST RN 741217-26-5  
 DICTIONARY FILE UPDATES: 7 SEP 2004 HIGHEST RN 741217-26-5  
 TSCA INFORMATION NOW CURRENT THROUGH MAY 21, 2004

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chain nodes :  
4 5 10 16 17  
ring nodes :  
9 11 12 13 14 15  
ring/chain nodes :  
6 7 8

chain bonds :  
4-5 4-6 6-7 7-8 8-9 8-10 11-16 16-17  
ring bonds :  
9-11 9-15 11-12 12-13 13-14 14-15

exact/norm bonds :  
7-8 8-9 8-10 16-17

exact bonds :  
4-5 4-6 6-7 11-16  
normalized bonds :  
9-11 9-15 11-12 12-13 13-14 14-15

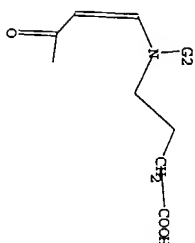
G1:N,P,X,CF2,CF3,CCl2,CCl3,CBr2,CBr3,CI2,CI3,CN,NO2,CY

G2:C,S

Match level :  
4:CLASS 5:CLASS 6:CLASS 7:CLASS 8:CLASS 9:CLASS 10:CLASS 11:Atom 12:Atom  
13:Atom 14:Atom 15:Atom 16:CLASS 17:CLASS

L5 STRUCTURE UPLOADED

=> D L5  
L5 HAS NO ANSWERS  
L5 STR



G1 N,P,X,CF2,CF3,CCl2,CCl3,CBr2,CBr3,CI2,CI3,CN,NO2,CY  
G2 C,S

Structure attributes must be viewed using STN Express query preparation.

=> S L5  
SAMPLE SEARCH INITIATED 10:48:39 FILE 'REGISTRY'  
SAMPLE SCREEN SEARCH COMPLETED - 405 TO ITERATE  
100.0% PROCESSED 405 ITERATIONS  
SEARCH TIME: 00.00.01  
0 ANSWERS

FULL FILE PROJECTIONS: ONLINE \*\*COMPLETE\*\*  
BATCH \*\*COMPLETE\*\*  
PROJECTED ITERATIONS: 6893 TO 9307  
PROJECTED ANSWERS: 0 TO 0

L6 0 SEA SSS SAM L5

=> S L5 SSS FULL  
FULL SEARCH INITIATED 10:48:46 FILE 'REGISTRY'  
FULL SCREEN SEARCH COMPLETED - 8040 TO ITERATE  
100.0% PROCESSED 8040 ITERATIONS  
SEARCH TIME: 00.00.01  
0 ANSWERS

L7 0 SEA SSS FULL L5

=> FILE CAPLUS  
COST IN U.S. DOLLARS  
FULL ESTIMATED COST  
DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)  
CA SUBSCRIBER PRICE  
SINCE FILE ENTRY  
TOTAL SESSION  
-1.40

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FILE COVERS 1907 - 8 Sep 2004 VOL 141 ISS 11  
FILE LAST UPDATED: 7 Sep 2004 (20040907/ED)

This file contains CAS Registry Numbers for easy and accurate substance identification.

=> S 2001:185710/AN  
L6 1 2001:185710/AN

=> D

L6 ANSWER 1 OF 1 CAPLUS COPYRIGHT 2004 ACS on STN  
AN 2001:185710 CAPLUS  
DN 134:222638  
TI Process for the preparation of 2,3-dihydroazepine compounds  
IN Ikemoto, Tomomi; Ito, Tatsuya; Nishiguchi, Atsuko; Tomimatsu, Kiminori  
PA Takeda Chemical Industries, Ltd., Japan  
SO PCT Int. Appl., 59 pp.  
CODEN: PIXXD2  
DT Patent  
LA Japanese

PAN.CNT 1  
PATENT NO.

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI WO 2001017947	A1	20010315	WO 2000-JP6012	20000905
W: AE, AG, AL, AM, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CN, CR, CU, CZ, DE, DM, DZ, EE, GE, GR, HU, ID, IL, IN, IS, JP, KG, KR, KZ, LC, LK, LR, LT, LV, MA, MD, MG, MK, MN, MX, MY, NZ, PL, RO, RU, SG, SI, SK, TJ, TM, TR, TT, UA, US, UZ, VN, YU, ZA, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM	AS	20010410	AU 2000-68706	20000905
RM: GH, GM, KE, LS, MW, MZ, SD, SZ, TZ, UG, ZM, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GN, GW, ML, MR, NE, SN, TD, TG	A1	20020605	EP 2000-956925	20000905
AU 2000068706	AS	20010410	AU 2000-68706	20000905
EP 1211239	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL	20010605	JP 2000-275003	20000906
JP 2001151741	A2	20010605		
PRAI JP 1999-252334	A	19990906		
WO 2000-JP6012	W	20000905		
OS CASREACT 134:222638; MARPAT 134:222638				
RE.CNT 14				

ALL CITATIONS AVAILABLE IN THE RE FORMAT

=> SEL RN  
E1 THROUGH E46 ASSIGNED

=> FILE REG  
COST IN U.S. DOLLARS

FULL ESTIMATED COST

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)

CA SUBSCRIBER PRICE

SINCE FILE ENTRY	TOTAL SESSION
3.84	328.29
SINCE FILE ENTRY	TOTAL SESSION
0.00	-1.40

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STRUCTURE FILE UPDATES: 7 SEP 2004 HIGHEST RN 741217-26-5  
DICTIONARY FILE UPDATES: 7 SEP 2004 HIGHEST RN 741217-26-5

ISCA INFORMATION NOW CURRENT THROUGH MAY 21, 2004

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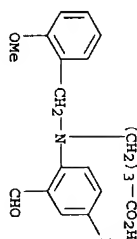
Experimental and calculated property data are now available. For more information enter HELP PROP at an arrow prompt in the file or refer to the file summary sheet on the web at:  
<http://www.cas.org/ONLINE/DBS/Registryss.html>

=> S E1-E46

1 106-94-5/BI	1 12687-97-0/BI
(106-94-5/RN)	(12687-97-0/RN)
1 123-38-6/BI	1 313731-43-0/BI
(123-38-6/RN)	(313731-43-0/RN)
1 135-02-4/BI	1 313737-28-9/BI
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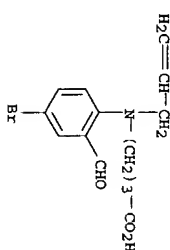
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RN 329347-35-5 REGISTRY  
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MF C19 H20 Br N O4  
SR CA  
LC STN Files: CA, CAPLUS  
DT,CA Caplus document type: Patent  
RL,P Roles from patents: PREP (Preparation); RACT (Reactant or reagent)



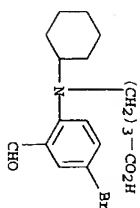
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L9 ANSWER 2 OF 46 REGISTRY COPYRIGHT 2004 ACS on STN  
RN 329347-34-4 REGISTRY  
CN Butanoic acid, 4-[(4-bromo-2-formylphenyl) (2-propenylamino) - (9CI) (CA INDEX NAME)  
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SR CA  
LC STN Files: CA, CAPLUS  
DT,CA Caplus document type: Patent  
RL,P Roles from patents: PREP (Preparation); RACT (Reactant or reagent)



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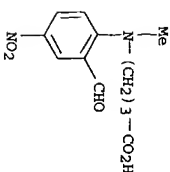
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SR CA  
LC STN Files: CA, CAPLUS  
DT,CA Caplus document type: Patent  
RL,P Roles from patents: PREP (Preparation); RACT (Reactant or reagent)



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1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

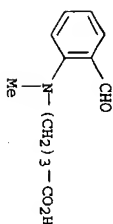
L9 ANSWER 4 OF 46 REGISTRY COPYRIGHT 2004 ACS on STN  
RN 329347-32-2 REGISTRY  
CN Butanoic acid, 4-[(2-formyl-4-nitrophenyl)methylamino] - (9CI) (CA INDEX NAME)  
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MF C12 H14 N2 O5  
SR CA  
LC STN Files: CA, CAPLUS  
DT.CA Caplus document type: Patent  
RL.P Roles from patents: PREP (Preparation); RACT (Reactant or reagent)



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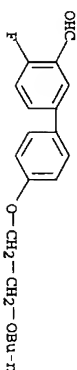
L9 ANSWER 5 OF 46 REGISTRY COPYRIGHT 2004 ACS on STN  
RN 329347-31-1 REGISTRY  
CN Butanoic acid, 4-[(2-formylphenyl)methylamino] - (9CI) (CA INDEX NAME)  
FS 3D CONCORD  
MF C12 H15 N O3  
SR CA  
LC STN Files: CA, CAPLUS  
DT.CA Caplus document type: Patent  
RL.P Roles from patents: PREP (Preparation); RACT (Reactant or reagent)



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1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

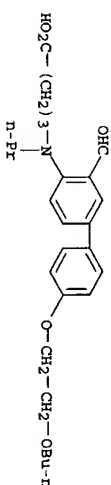
L9 ANSWER 6 OF 46 REGISTRY COPYRIGHT 2004 ACS on STN  
RN 329347-30-0 REGISTRY  
CN [1,1'-biphenyl]-3-carboxaldehyde, 4'-(2-butoxyethoxy)-4-fluoro- (9CI) (CA INDEX NAME)  
FS 3D CONCORD  
MF C19 H21 F O3  
SR CA  
LC STN Files: CA, CAPLUS  
DT.CA Caplus document type: Patent  
RL.P Roles from patents: PREP (Preparation); RACT (Reactant or reagent)



\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

1 REFERENCES IN FILE CA (1907 TO DATE)  
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L9 ANSWER 7 OF 46 REGISTRY COPYRIGHT 2004 ACS on STN  
RN 329347-29-7 REGISTRY  
CN Butanoic acid, 4-[(4'-(2-butoxyethoxy)-3-formyl[1,1'-biphenyl]-4-yl)propylamino] - (9CI) (CA INDEX NAME)  
MF C26 H35 N O5  
SR CA  
LC STN Files: CA, CAPLUS  
DT.CA Caplus document type: Patent  
RL.P Roles from patents: PREP (Preparation); RACT (Reactant or reagent)

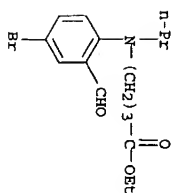


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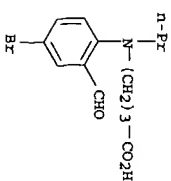


L9 ANSWER 8 OF 46 REGISTRY COPYRIGHT 2004 ACS on STN  
 RN 329347-28-6 REGISTRY  
 CN Butanoic acid, 4-[(4-bromo-2-formylphenyl)propylamino]-, ethyl ester (9CI)  
 (CA INDEX NAME)  
 MF C16 H22 Br N O3  
 SR CA  
 LC STN files: CA, CAPLUS  
 DT.CA Caplus document type: Patent  
 RL.P Roles from patents: PREP (Preparation); RACT (Reactant or reagent)



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1 REFERENCES IN FILE CA (1907 TO DATE)  
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 L9 ANSWER 9 OF 46 REGISTRY COPYRIGHT 2004 ACS on STN  
 RN 329347-27-5 REGISTRY  
 CN Butanoic acid, 4-[(4-bromo-2-formylphenyl)propylamino]- (9CI) (CA INDEX NAME)  
 MF C14 H18 Br N O3  
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 RL.P Roles from patents: PREP (Preparation); RACT (Reactant or reagent)



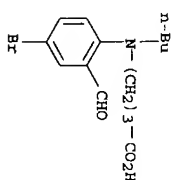
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 RN 329347-26-4 REGISTRY  
 CN Butanoic acid, 4-(propylamino)- (9CI) (CA INDEX NAME)  
 FS 3D CONCORD  
 MF C7 H15 N O2  
 SR CA  
 LC STN files: CA, CAPLUS

DT.CA Caplus document type: Patent  
 RL.P Roles from patents: PREP (Preparation); RACT (Reactant or reagent)  
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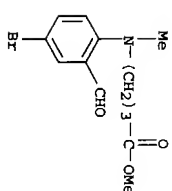
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 RN 329347-25-3 REGISTRY  
 CN Butanoic acid, 4-[(4-bromo-2-formylphenyl)butylamino]- (9CI) (CA INDEX NAME)  
 MF C15 H20 Br N O3  
 SR CA  
 LC STN files: CA, CAPLUS  
 DT.CA Caplus document type: Patent  
 RL.P Roles from patents: PREP (Preparation); RACT (Reactant or reagent)



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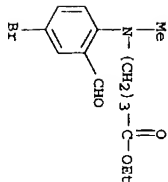
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 RN 329347-24-2 REGISTRY  
 CN Butanoic acid, 4-[(4-bromo-2-formylphenyl)methylamino]-, methyl ester (9CI) (CA INDEX NAME)  
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 SR CA  
 LC STN files: CA, CAPLUS  
 DT.CA Caplus document type: Patent  
 RL.P Roles from patents: PREP (Preparation); RACT (Reactant or reagent)



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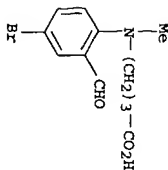
L9 ANSWER 13 OF 46 REGISTRY COPYRIGHT 2004 ACS on STN  
RN 329347-23-1 REGISTRY  
CN Butanoic acid, 4-[(4-bromo-2-formylphenyl)methylamino]-, ethyl ester (9CI)  
(CA INDEX NAME)  
FS 3D CONCORD  
MF C14 H18 Br N O3  
SR CA  
LC STN Files: CA, CAPLUS, CASREACT  
DT,CA Caplus document type: Patent  
Rt,P Roles from patents: PREP (Preparation); RACT (Reactant or reagent)



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1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L9 ANSWER 14 OF 46 REGISTRY COPYRIGHT 2004 ACS on STN  
RN 329347-22-0 REGISTRY  
CN Butanoic acid, 4-[(4-bromo-2-formylphenyl)methylamino]- (9CI) (CA INDEX NAME)  
FS 3D CONCORD  
MF C12 H14 Br N O3  
SR CA  
LC STN Files: CA, CAPLUS, CASREACT  
DT,CA Caplus document type: Patent  
Rt,P Roles from patents: PREP (Preparation); RACT (Reactant or reagent)

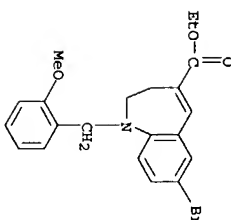


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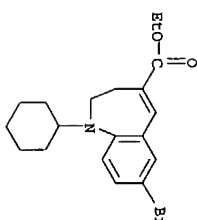
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RN 329347-21-9 REGISTRY  
CN 1H-1-Benzazepine-4-carboxylic acid, 7-bromo-2,3-dihydro-1-[(2-methoxyphenyl)methyl]-, ethyl ester (9CI) (CA INDEX NAME)  
FS 3D CONCORD  
MF C21 H22 Br N O3  
SR CA  
LC STN Files: CA, CAPLUS  
DT,CA Caplus document type: Patent  
Rt,P Roles from patents: PREP (Preparation)



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1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L9 ANSWER 16 OF 46 REGISTRY COPYRIGHT 2004 ACS on STN  
RN 329347-20-8 REGISTRY  
CN 1H-1-Benzazepine-4-carboxylic acid, 7-bromo-1-cyclohexyl-2,3-dihydro-, ethyl ester (9CI) (CA INDEX NAME)  
FS 3D CONCORD  
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SR CA  
LC STN Files: CA, CAPLUS  
DT,CA Caplus document type: Patent  
Rt,P Roles from patents: PREP (Preparation)

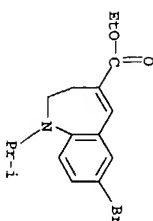


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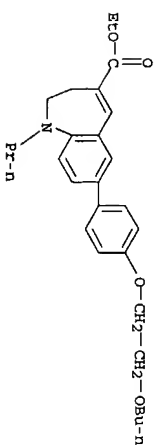
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CN 1H-1-Benzazepine-4-carboxylic acid, 7-bromo-2,3-dihydro-1-(1-methylethyl)-  
FS 3D CONCORD  
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SR CA  
LC STN Files: CA, CAPLUS  
DT.CA Caplus document type: Patent  
RL.P Roles from patents: PREP (Preparation)



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1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L9 ANSWER 18 OF 46 REGISTRY COPYRIGHT 2004 ACS on STN  
RN 329347-18-4 REGISTRY  
CN 1H-1-Benzazepine-4-carboxylic acid, 7-[4-(2-butoxyethoxy)phenyl]-2,3-  
FS 3D CONCORD  
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SR CA  
LC STN Files: CA, CAPLUS  
DT.CA Caplus document type: Patent  
RL.P Roles from patents: PREP (Preparation)



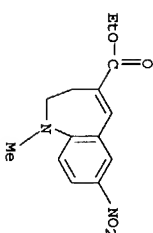
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RN 329347-17-3 REGISTRY  
CN 1H-1-Benzazepine-4-carboxylic acid, 2,3-dihydro-1-methyl-7-nitro-, ethyl  
FS 3D CONCORD  
MF C17 H22 Br N O2  
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DT.CA Caplus document type: Patent  
RL.P Roles from patents: PREP (Preparation)

MF C14 H16 N2 O4

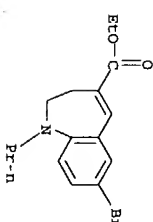
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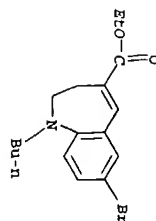
L9 ANSWER 20 OF 46 REGISTRY COPYRIGHT 2004 ACS on STN  
RN 329347-16-2 REGISTRY  
CN 1H-1-Benzazepine-4-carboxylic acid, 7-bromo-2,3-dihydro-1-propyl-, ethyl  
FS 3D CONCORD  
MF C16 H20 Br N O2  
SR CA  
LC STN Files: CA, CAPLUS  
DT.CA Caplus document type: Patent  
RL.P Roles from patents: PREP (Preparation)



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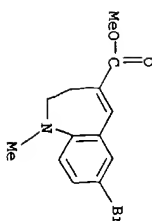
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RN 329347-15-1 REGISTRY  
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FS 3D CONCORD  
MF C17 H22 Br N O2  
SR CA  
LC STN Files: CA, CAPLUS  
DT.CA Caplus document type: Patent  
RL.P Roles from patents: PREP (Preparation)



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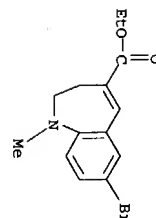
L9 ANSWER 22 OF 46 REGISTRY COPYRIGHT 2004 ACS on STN  
RN 329347-14-0 REGISTRY  
CN 1H-1-Benzazepine-4-carboxylic acid, 7-bromo-2,3-dihydro-1-methyl-, methyl ester (9CI) (CA INDEX NAME)  
FS 3D CONCORD  
MF C13 H14 Br N O2  
SR CA  
LC STN Files: CA, CAPLUS  
DT.CA Caplus document type: Patent  
RL.P Roles from patents: PREP (Preparation)



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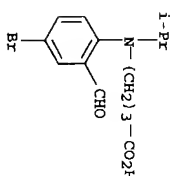
L9 ANSWER 23 OF 46 REGISTRY COPYRIGHT 2004 ACS on STN  
RN 329347-13-9 REGISTRY  
CN 1H-1-Benzazepine-4-carboxylic acid, 7-bromo-2,3-dihydro-1-methyl-, ethyl ester (9CI) (CA INDEX NAME)  
FS 3D CONCORD  
MF C14 H16 Br N O2  
SR CA  
LC STN Files: CA, CAPLUS, CASREACT  
DT.CA Caplus document type: Patent  
RL.P Roles from patents: PREP (Preparation)



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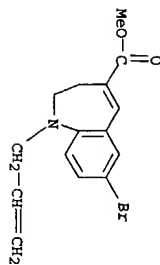
L9 ANSWER 24 OF 46 REGISTRY COPYRIGHT 2004 ACS on STN  
RN 313731-28-9 REGISTRY  
CN Butanoic acid, 4-[(4-bromo-2-formylphenyl)(1-methylethyl)amino] - (9CI) (CA INDEX NAME)  
FS 3D CONCORD  
MF C14 H18 Br N O3  
SR CA  
LC STN Files: CA, CAPLUS  
DT.CA Caplus document type: Patent  
RL.P Roles from patents: PREP (Preparation); RACT (Reactant or reagent)



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3 REFERENCES IN FILE CA (1907 TO DATE)  
3 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L9 ANSWER 25 OF 46 REGISTRY COPYRIGHT 2004 ACS on STN  
RN 313731-43-0 REGISTRY  
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FS 3D CONCORD  
MF C15 H16 Br N O2  
SR CA  
LC STN Files: CA, CAPLUS  
DT.CA Caplus document type: Patent  
RL.P Roles from patents: PREP (Preparation); RACT (Reactant or reagent)



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2 REFERENCES IN FILE CAPLUS (1907 TO DATE)

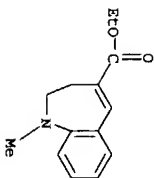
L9 ANSWER 26 OF 46 REGISTRY COPYRIGHT 2004 ACS on STN  
RN 251554-47-9 REGISTRY  
CN 1H-1-benzazepine-4-carboxylic acid, 2,3-dihydro-1-methyl-, ethyl ester (9CI) (CA INDEX NAME)

OTHER NAMES:

CN Ethyl 1-methyl-2,3-dihydro-1H-benz[b]azepine-4-carboxylate  
FS 3D CONCORD  
MF C14 H17 N O2  
SR CA

LC STN Files: CA, CAPLUS, USPATFUL

DT,CA Caplus document type: Patent  
RL,P Roles from patents: PREP (Preparation); RACT (Reactant or reagent)



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2 REFERENCES IN FILE CA (1907 TO DATE)  
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L9 ANSWER 27 OF 46 REGISTRY COPYRIGHT 2004 ACS on STN  
RN 93777-26-5 REGISTRY  
CN Benzaldehyde, 5-bromo-2-fluoro- (9CI) (CA INDEX NAME)

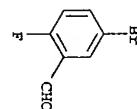
OTHER NAMES:

CN 3-Bromo-6-fluorobenzaldehyde  
FS 5-Bromo-2-fluorobenzaldehyde  
MF C7 H4 Br F O  
SR European Union (EU)

LC STN Files: CA, CAPLUS, CASREACT, CHEMCATS, CHEMLIST, CSCHM, TOXCENTER, USPAT2, USPATFUL

Other Sources: EINECS\*\*  
(\*\*Enter CHEMLIST file for up-to-date regulatory information)

DT,CA Caplus document type: Journal; Patent  
RL,P Roles from patents: PREP (Preparation); RACT (Reactant or reagent)  
RL,NP Roles from non-patents: RACT (Reactant or reagent)



\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

63 REFERENCES IN FILE CA (1907 TO DATE)  
64 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L9 ANSWER 28 OF 46 REGISTRY COPYRIGHT 2004 ACS on STN  
RN 77771-02-9 REGISTRY  
CN Benzaldehyde, 3-bromo-4-fluoro- (9CI) (CA INDEX NAME)

OTHER NAMES:

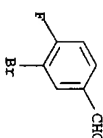
CN 3-Bromo-4-fluorobenzaldehyde  
FS 4-Fluoro-3-bromobenzaldehyde  
MF C7 H4 Br F O  
SR CA

LC STN Files: BEILSTEIN\*, CA, CAPLUS, CASREACT, CHEMCATS, CHEMINFORMX, CHEMLIST, CIN, CSCHM, MSDS-OHS, SYNTHLINE, TOXCENTER, USPAT2, USPATFUL

Other Sources: EINECS\*\*, NDSL\*\*, TSCA\*\*  
(\*\*Enter CHEMLIST file for up-to-date regulatory information)

DT,CA Caplus document type: Journal; Patent  
RL,P Roles from patents: PREP (Preparation); RACT (Reactant or reagent)

RL,NP Roles from non-patents: PREP (Preparation); PROC (Process); RACT (Reactant or reagent)



\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

108 REFERENCES IN FILE CA (1907 TO DATE)  
108 REFERENCES IN FILE CAPLUS (1907 TO DATE)

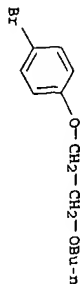
L9 ANSWER 29 OF 46 REGISTRY COPYRIGHT 2004 ACS on STN  
RN 39255-24-8 REGISTRY  
CN Benzene, 1-bromo-4-(2-butoxyethoxy)- (9CI) (CA INDEX NAME)

OTHER NAMES:

CN p-Bromobutoxyethoxybenzene  
FS 3D CONCORD  
MF C12 H17 Br O2

LC STN Files: CA, CAPLUS, USPATFUL

DT,CA Caplus document type: Journal; Patent  
RL,P Roles from patents: PREP (Preparation); RACT (Reactant or reagent)  
RL,NP Roles from non-patents: PREP (Preparation); RACT (Reactant or reagent)



**\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\***

6 REFERENCES IN FILE CA (1907 TO DATE)  
6 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L9 ANSWER 30 OF 46 REGISTRY COPYRIGHT 2004 ACS on STN  
RN 7439-95-4 REGISTRY  
CN Magnesium (8CI, 9CI) (CA INDEX NAME)  
OTHER NAMES:  
CN Magnesium element  
CN PK 31  
CN PK 31 (magnesium)  
CN Riecke's active magnesium  
DR 14147-08-1, 67208-78-0, 199281-20-4, 298688-48-9  
MF Mg  
CI COM

STN Files: ANABSTR, AQUIRE, BIOBUSINESS, BIOSIS, BIOTECNO, CA, CABA, CANCERLIT, CAPLUS, CASREACT, CBN, CEN, CHEMCATS, CHEMINFORMEX, CHEMLIST, CIN, CSCHEM, CSNB, DDERU, DETHERM\*, DRUG, EMBASE, ENCOMPILT, ENCOMPILT2, ENCOMPART, ENCOMPART2, HSDB\*, IFCDB, IFIPAT, IFIPAT, IPA, MEDLINE, MRCR, MSDS-OHS, NAPPALERT, NIOSHTIC, RTECS\*, TOXCENTER, ULIDAT, USPAT2, USPATFULL, VETU, VIB  
(\*File contains numerically searchable property data)  
Other Sources: DSL\*\*, EINECS\*\*, TSCA\*\*  
(\*Enter CHEMLIST file for up-to-date regulatory information)

DT, CA Caplus document type: Book; Conference; Dissertation; Journal; Patent; Preprint; Report

RL, P Roles from patents: ANST (Analytical study); BIOL (Biological study); CMBI (Combinatorial study); FORM (Formation, nonpreparative); MSC (Miscellaneous); OCCU (Occurrence); PREP (Preparation); PROC (Process); PRP (Properties); RACT (Reactant or reagent); USES (Uses); NORL (No role in record)

RLD, P Roles for non-specific derivatives from patents: ANST (Analytical study); BIOL (Biological study); FORM (Formation, nonpreparative); MSC (Miscellaneous); OCCU (Occurrence); PREP (Preparation); PROC (Process); PRP (Properties); RACT (Reactant or reagent); USES (Uses)  
RL, NP Roles from non-patents: ANST (Analytical study); BIOL (Biological study); CMBI (Combinatorial study); FORM (Formation, nonpreparative); MSC (Miscellaneous); OCCU (Occurrence); PREP (Preparation); PROC (Process); PRP (Properties); RACT (Reactant or reagent); USES (Uses)  
NORL (No role in record)

RLD, NP Roles for non-specific derivatives from non-patents: ANST (Analytical study); BIOL (Biological study); CMBI (Combinatorial study); FORM (Formation, nonpreparative); MSC (Miscellaneous); OCCU (Occurrence); PREP (Preparation); PROC (Process); PRP (Properties); RACT (Reactant or reagent); USES (Uses)

Mg

**\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\***

199352 REFERENCES IN FILE CA (1907 TO DATE)  
6799 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA

199455 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L9 ANSWER 31 OF 46 REGISTRY COPYRIGHT 2004 ACS on STN  
RN 6976-17-6 REGISTRY  
CN Butanoic acid, 4-(methylamino)-, hydrochloride (9CI) (CA INDEX NAME)  
OTHER NAMES:

4-(Methylamino)butanoic acid hydrochloride  
CN 4-(Methylamino)butyric acid hydrochloride  
MF CS H11 N 02 . Cl H  
STN Files: BEILSTEIN\*, CA, CAPLUS, CASREACT, CHEMCATS, CSCHEM, MSDS-OHS, PS, TOXCENTER, USPAT2, USPATFULL  
(\*File contains numerically searchable property data)

DT, CA Caplus document type: Journal; Patent  
RL, P Roles from patents: RACT (Reactant or reagent)  
RL, NP Roles from non-patents: PREP (Preparation); RACT (Reactant or reagent)  
CRN (1119-48-8)

MeNH-(CH<sub>2</sub>)<sub>3</sub>-CO<sub>2</sub>H

● HCl

**\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\***

28 REFERENCES IN FILE CA (1907 TO DATE)  
28 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L9 ANSWER 32 OF 46 REGISTRY COPYRIGHT 2004 ACS on STN  
RN 6837-24-7 REGISTRY  
CN 2-Pyrrolidone, 1-cyclohexyl- (6CI, 7CI, 8CI, 9CI) (CA INDEX NAME)  
OTHER NAMES:

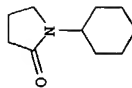
1-Cyclohexyl-2-pyrrolidone  
CN 1-Cyclohexyl-2-pyrrolidone  
CN N-Cyclohexyl-2-pyrrolidone  
CN N-Cyclohexyl-2-pyrrolidone  
CN N-Cyclohexylpyrrolidone  
PS 3D CONCORD  
MF C10 H17 N O  
CI COM

STN Files: BEILSTEIN\*, BIOSIS, CA, COLD, CAPLUS, CASREACT, CHEMCATS, CHEMINFORMEX, CHEMLIST, CIN, CSCHEM, CSNB, DETHERM\*, IFCDB, IFIPAT, IFIPDB, MEDLINE, MSDS-OHS, NIOSHTIC, PROMT, RTECS\*, SPECINFO, TOXCENTER, USPATFULL  
(\*File contains numerically searchable property data)  
Other Sources: EINECS\*\*, DSL\*\*, TSCA\*\*  
(\*Enter CHEMLIST file for up-to-date regulatory information)

DT, CA Caplus document type: Conference; Journal; Patent; Report

RL, P Roles from patents: ANST (Analytical study); BIOL (Biological study); MSC (Miscellaneous); PREP (Preparation); PROC (Process); PRP (Properties); RACT (Reactant or reagent); USES (Uses); NORL (No role in record)

RLD, P Roles for non-specific derivatives from patents: PROC (Process); USES (Uses)  
RL, NP Roles from non-patents: ANST (Analytical study); BIOL (Biological study); MSC (Miscellaneous); OCCU (Occurrence); PREP (Preparation); PROC (Process); PRP (Properties); RACT (Reactant or reagent); USES (Uses); NORL (No role in record)



\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

264 REFERENCES IN FILE CA (1907 TO DATE)  
4 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA  
264 REFERENCES IN FILE CAPLUS (1907 TO DATE)  
5 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

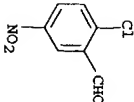
L9 ANSWER 33 OF 46 REGISTRY COPYRIGHT 2004 ACS ON STN  
RN 6161-21-3 REGISTRY  
CN Benzaldehyde, 2-chloro-5-nitro- (6CI, 8CI, 9CI) (CA INDEX NAME)  
OTHER NAMES:  
CN 2-chloro-5-nitrobenzaldehyde  
CN 3-nitro-6-chlorobenzaldehyde  
CN 5-nitro-2-chlorobenzaldehyde  
CN 6-chloro-3-nitrobenzaldehyde  
CN NSC 129753  
FS 3D CONCORD  
ME C7 H4 Cl N O3  
CI COM

STN Files: ACQUIRE, BELISTEIN\*, CA, CAOLD, CAPLUS, CASREACT, CHEMCATS,  
CHEMINFORMEX, CHEMLIST, COSCHEM, HODOC\*, IFICDB, IFIPAT, IFIUDB, RTECS\*,  
SPECINFO, TOXCENTER, USPAT2, USPATFULL  
(\*file contains numerically searchable property data)  
Other Sources: EINECS\*\*, NDSL\*\*, TSCA\*\*

(\*Enter CHEMLIST file for up-to-date regulatory information)

DT.CA Caplus document type: Conference; Journal; Patent  
RL.P Roles from patents: PREP (Preparation); PROC (Process); RACT (Reactant  
or reagent); USES (Uses)

RL.NP Roles from non-patents: ANST (Analytical study); BIOL (Biological  
study); CMAI (Combinatorial study); FORM (Formation, nonpreparative);  
PREP (Preparation); PROC (Process); PRP (Properties); RACT (Reactant or  
reagent); NORL (No role in record)



\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

259 REFERENCES IN FILE CA (1907 TO DATE)  
259 REFERENCES IN FILE CAPLUS (1907 TO DATE)  
3 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

L9 ANSWER 34 OF 46 REGISTRY COPYRIGHT 2004 ACS ON STN  
RN 3772-26-7 REGISTRY  
CN 2-pyrrolidinone, 1-(1-methylethyl)- (9CI) (CA INDEX NAME)  
OTHER CA INDEX NAMES:  
CN 2-pyrrolidinone, 1-isopropyl- (6CI, 7CI, 8CI)

OTHER NAMES:  
CN 1-isopropyl-2-pyrrolidinone  
CN N-isopropyl-2-pyrrolidinone  
CN N-isopropyl-2-pyrrolidone  
CN N-isopropylbutyrolactam  
CN N-isopropylpyrrolidinone  
FS 3D CONCORD  
ME C7 H13 N O  
CI COM

STN Files: BELISTEIN\*, CA, CAOLD, CAPLUS, CASREACT, CHEMCATS,  
CHEMINFORMEX, CHEMLIST, HODOC\*, IFICDB, IFIPAT, IFIUDB, RTECS\*,  
SPECINFO, TOXCENTER, USPATFULL  
(\*file contains numerically searchable property data)

Other Sources: EINECS\*\*, NDSL\*\*, TSCA\*\*

DT.CA Caplus document type: Journal; Patent  
RL.P Roles from patents: ANST (Analytical study); BIOL (Biological study);  
PREP (Preparation); PRP (Properties); RACT (Reactant or reagent); USES  
(Uses); NORL (No role in record)

RL.NP Roles from non-patents: BIOL (Biological study); PREP (Preparation);  
PROC (Process); PRP (Properties); RACT (Reactant or reagent); USES  
(Uses); NORL (No role in record)

RDL.NP Roles for non-specific derivatives from non-patents: PRP (Properties).



\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

76 REFERENCES IN FILE CA (1907 TO DATE)  
1 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA  
76 REFERENCES IN FILE CAPLUS (1907 TO DATE)  
6 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

L9 ANSWER 35 OF 46 REGISTRY COPYRIGHT 2004 ACS ON STN  
RN 3470-99-3 REGISTRY  
CN 2-pyrrolidinone, 1-propyl- (7CI, 8CI, 9CI) (CA INDEX NAME)  
OTHER NAMES:

CN 1-propyl-2-pyrrolidinone  
CN 1-propyl-2-pyrrolidone  
CN 1-propylazacyclopentan-2-one  
CN N-propyl-2-pyrrolidinone  
CN N-propyl-2-pyrrolidone  
CN N-propylpyrrolidinone  
FS 3D CONCORD  
ME C7 H13 N O  
CI COM

STN Files: BELISTEIN\*, CA, CAOLD, CAPLUS, CASREACT, IFICDB, IFIPAT,  
IFIUDB, SPECINFO, TOXCENTER, USPAT2, USPATFULL  
(\*file contains numerically searchable property data)

DT.CA Caplus document type: Journal; Patent  
RL.P Roles from patents: BIOL (Biological study); PREP (Preparation); PROC

RL.NP (Process); PRP (Properties); RACT (Reactant or reagent); USES (Uses)  
 Roles from non-patents: BIOL (Biological study); PREP (Preparation);  
 PROC (Process); PRP (Properties); RACT (Reactant or reagent); NORL (No  
 role in record)



**\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\***

64 REFERENCES IN FILE CA (1907 TO DATE)  
 65 REFERENCES IN FILE CAPUS (1907 TO DATE)  
 2 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

L9 ANSWER 36 OF 46 REGISTRY COPYRIGHT 2004 ACS on STN  
 RN 3470-98-2 REGISTRY  
 CN 2-Pyrrolidinone, 1-butyl- (6CI, 7CI, 8CI, 9CI) (CA INDEX NAME)  
 OTHER NAMES:  
 CN 1-Butyl-2-pyrrolidinone  
 CN 1-Butyl-2-pyrrolidone  
 CN N-Butyl-2-pyrrolidinone  
 CN N-Butyl-2-pyrrolidone  
 CN N-Butylbutyrolactam  
 CN N-Butylpyrrolidinone  
 CN N-Butylpyrrolidone  
 FS 3D CONCORD  
 ME C8 H15 N O  
 CI COM

LC STN Files: ANABSTR, BEILSTEIN\*, CA, CAOLD, CAPUS, CASREACT, CHEMCATS,  
 CHEMINFORMRX, CHEMLIST, CSCHEM, DETHERM\*, IFICDB, IFIPAT, IFIUDB, IPA,  
 RTECS\*, SPECINFO, TOXCENTER, USPAT2, USPATFUL  
 (\*File contains numerically searchable property data)

Other Sources: EINECS\*\*

(\*\*Enter CHEMLIST file for up-to-date regulatory information)

DT.CA Caplus document type: Conference; Journal; Patent  
 RL.P Roles from patents: BIOL (Biological study); PREP (Preparation); PROC  
 (Process); PRP (Properties); RACT (Reactant or reagent); USES (Uses);  
 NORL (No role in record)  
 RL.NP Roles from non-patents: ANST (Analytical study); BIOL (Biological  
 study); OCCU (Occurrence); PREP (Preparation); PROC (Process); PRP  
 (Properties); RACT (Reactant or reagent); USES (Uses); NORL (No role in  
 record)



**\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\***

116 REFERENCES IN FILE CA (1907 TO DATE)  
 116 REFERENCES IN FILE CAPUS (1907 TO DATE)  
 6 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

L9 ANSWER 37 OF 46 REGISTRY COPYRIGHT 2004 ACS on STN  
 RN 2687-97-0 REGISTRY  
 CN 2-Pyrrolidinone, 1-(2-propenyl)- (9CI) (CA INDEX NAME)  
 OTHER CA INDEX NAMES:  
 CN 2-Pyrrolidinone, 1-allyl- (6CI, 7CI, 8CI)

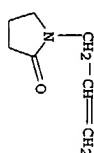
OTHER NAMES:  
 CN 1-Allyl-2-oxopyrrolidine  
 CN 1-Allyl-2-pyrrolidinone  
 CN N-Allyl-2-pyrrolidinone  
 CN N-Allyl-2-pyrrolidone  
 CN N-Allylpyrrolidinone  
 CN NSC 14674  
 FS 3D CONCORD  
 ME C7 H11 N O  
 CI COM

LC STN Files: BEILSTEIN\*, CA, CAOLD, CAPUS, CASREACT, CHEMCATS,  
 CHEMINFORMRX, CHEMLIST, IFICDB, IFIPAT, IFIUDB, TOXCENTER, USPAT2,  
 USPATFUL  
 (\*File contains numerically searchable property data)

Other Sources: EINECS\*\*

(\*\*Enter CHEMLIST file for up-to-date regulatory information)

DT.CA Caplus document type: Conference; Journal; Patent  
 RL.P Roles from patents: PREP (Preparation); RACT (Reactant or reagent);  
 USES (Uses)  
 RLD.P Roles for non-specific derivatives from patents: BIOL (Biological  
 study); PREP (Preparation); USES (Uses)  
 RL.NP Roles from non-patents: BIOL (Biological study); PREP (Preparation);  
 PRP (Properties); RACT (Reactant or reagent); NORL (No role in record)



**\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\***

47 REFERENCES IN FILE CA (1907 TO DATE)  
 11 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA  
 48 REFERENCES IN FILE CAPUS (1907 TO DATE)  
 2 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

L9 ANSWER 38 OF 46 REGISTRY COPYRIGHT 2004 ACS on STN  
 RN 616-45-5 REGISTRY  
 CN 2-Pyrrolidinone (8CI, 9CI) (CA INDEX NAME)  
 OTHER NAMES:

CN α-Pyrrolidinone  
 CN α-Pyrrolidone  
 CN γ-Aminobutyric acid lactam  
 CN γ-Aminobutyric lactam  
 CN γ-Aminobutyrolactam  
 CN γ-Butyrolactam  
 CN 2-Oxopyrrolidine  
 CN 2-Pyrrolidone  
 CN 2-Tetrahydropyrrolone  
 CN 4-Aminobutyric acid lactam  
 CN Azacyclopentan-2-one  
 CN Butanoic acid, 4-amino-, lactam



CN Butyrolactam  
CN NSC 4593  
CN NSC 8413  
CN Pyridolone  
FS 3D CONCORD  
MF C4 H7 N O  
CI COM  
LC STN files: AGRICOLA, ANABSTR, AQUIRE, BELSTEIN\*, BIOSUBSNESS, BIOSIS, BIOTECHNO, CA, CANCELLIT, CAOLD, CAPUS, CASREACT, CBM, CEN, CHEMCATS, CHEMINFORMRX, CHEMLIST, CHEMSAFE, CIN, CSCHEM, DDFU, DETHERM\*, DIPPR\*, DRUGU, EMBASE, ENCOMPILT, ENCOMPILT2, ENCOMPILT, ENCOMPAT2, GELIN\*, HODOC\*, HSDB\*, IFICDB, IFIPAT, IFIUD, IPA, MEDLINE, MRCK\*, MSDS-OHS, NAPALERT, NIOSHTIC, PDLCOM\*, PIRA, PROMT, PS, RTECS\*, SPECINFO, SYNTHLINE, TOXCENTER, TULSA, USPAT2, USPATFILL, VTB

(\*File contains numerically searchable property data)  
Other Sources: DSL\*\*, EINECS\*\*, TSCA\*\*

DT.CA Caplus document type: Conference, Dissertation; Journal; Patent; Preprint; Report

RL.P Roles from patents: ANST (Analytical study); BIOL (Biological study); FORM (Formation, nonpreparative); MSC (Miscellaneous); PREP (Preparation); PROC (Process); PRP (Properties); RACT (Reactant or reagent); USES (Uses); NORL (No role in record)

RDL.P Roles for non-specific derivatives from patents: ANST (Analytical study); BIOL (Biological study); MSC (Miscellaneous); OCCU (Occurrence); PREP (Preparation); PROC (Process); PRP (Properties); RACT (Reactant or reagent); USES (Uses)

RL.NP Roles from non-patents: ANST (Analytical study); BIOL (Biological study); FORM (Formation, nonpreparative); OCCU (Occurrence); PREP (Preparation); PROC (Process); PRP (Properties); RACT (Reactant or reagent); USES (Uses); NORL (No role in record)

RDL.NP Roles for non-specific derivatives from non-patents: ANST (Analytical study); BIOL (Biological study); FORM (Formation, nonpreparative); MSC (Miscellaneous); PREP (Preparation); PROC (Process); PRP (Properties); RACT (Reactant or reagent); USES (Uses)



\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

3843 REFERENCES IN FILE CA (1907 TO DATE)  
377 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA  
3850 REFERENCES IN FILE CAPUS (1907 TO DATE)  
58 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

L9 ANSWER 39 OF 46 REGISTRY COPYRIGHT 2004 ACS on STN  
RN 446-52-6 REGISTRY  
CN Benzaldehyde, 2-fluoro- (9CI) (CA INDEX NAME)  
OTHER CA INDEX NAMES:  
CN Benzaldehyde, o-fluoro- (6CI, 7CI, 8CI)  
OTHER NAMES:  
CN 2-Fluorobenzaldehyde  
CN NSC 66829  
CN o-Fluorobenzaldehyde  
FS 3D CONCORD  
MF C7 H5 F O  
CI COM  
LC STN files: AGRICOLA, ANABSTR, BELSTEIN\*, BIOSIS, CA, CAOLD, CAPUS, CASREACT, CHEMCATS, CHEMINFORMRX, CHEMLIST, CSCHEM, GELIN\*, HODOC\*, IFICDB,

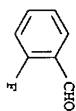
IFIPAT, IFIUD, PS, RTECS\*, SPECINFO, SYNTHLINE, TOXCENTER, USPAT2, USPATFILL

(\*File contains numerically searchable property data)  
Other Sources: EINECS\*\*

DT.CA Caplus document type: Conference; Journal; Patent; Report

RL.P Roles from patents: BIOL (Biological study); PREP (Preparation); PROC (Process); PRP (Properties); RACT (Reactant or reagent); USES (Uses)

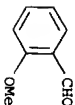
RDL.P Roles for non-specific derivatives from patents: USES (Uses)  
Roles from non-patents: ANST (Analytical study); BIOL (Biological study); CMBI (Combinatorial study); FORM (Formation, nonpreparative); PREP (Preparation); PROC (Process); PRP (Properties); RACT (Reactant or reagent); USES (Uses); NORL (No role in record)



\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

1106 REFERENCES IN FILE CA (1907 TO DATE)  
1 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA  
1111 REFERENCES IN FILE CAPUS (1907 TO DATE)  
15 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

L9 ANSWER 40 OF 46 REGISTRY COPYRIGHT 2004 ACS on STN  
RN 135-02-4 REGISTRY  
CN Benzaldehyde, 2-methoxy- (9CI) (CA INDEX NAME)  
OTHER CA INDEX NAMES:  
CN Benzaldehyde, o-methoxy- (3CI)  
CN o-Anisaldehyde (8CI)  
OTHER NAMES:  
CN 2-Anisaldehyde  
CN 2-Methoxybenzaldehyde  
CN 2-Methoxyphenylformaldehyde  
CN 2-Methoxybenzaldehyde  
CN 6-Methoxybenzaldehyde  
CN NC 064  
CN NSC 58960  
CN o-Formylanisole  
CN o-Methoxybenzaldehyde  
CN Salicylaldehyde methyl ether  
FS 3D CONCORD  
MF C8 H8 O2  
CI COM  
LC STN files: AGRICOLA, ANABSTR, BELSTEIN\*, BIOSUBSNESS, BIOSIS, CA, CAOLD, CAPUS, CASREACT, CHEMCATS, CHEMINFORMRX, CHEMLIST, CSCHEM, DETHERM\*, GELIN\*, HODOC\*, HSDB\*, IFICDB, IFIPAT, IFIUD, MSDS-OHS, NAPALERT, PROMT, RTECS\*, SPECINFO, SYNTHLINE, TOXCENTER, USPAT2, USPATFILL  
(\*File contains numerically searchable property data)  
Other Sources: DSL\*\*, EINECS\*\*, TSCA\*\*  
DT.CA Caplus document type: Conference; Journal; Patent; Report  
RL.P Roles from patents: ANST (Analytical study); BIOL (Biological study); PREP (Preparation); PROC (Process); PRP (Properties); RACT (Reactant or reagent); USES (Uses); NORL (No role in record)  
RDL.P Roles for non-specific derivatives from patents: PREP (Preparation); USES (Uses)



RL.NP Roles from non-patents: ANST (Analytical study); BIOL (Biological study); CMBI (Combinatorial study); FORM (Formation, nonpreparative); OCCU (Occurrence); PREP (Preparation); PROC (Process); PRP (Properties); RACT (Reactant or reagent); USES (Uses); NORL (No role in record)

RLD.NP Roles for non-specific derivatives from non-patents: ANST (Analytical study); USES (Uses)

**\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\***

2923 REFERENCES IN FILE CA (1907 TO DATE)  
4 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA  
2931 REFERENCES IN FILE CAPUS (1907 TO DATE)  
7 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

L9 ANSWER 41 OF 46 REGISTRY COPYRIGHT 2004 ACS ON STN  
RN 123-38-6 REGISTRY  
CN Propanal (9CI) (CA INDEX NAME)  
OTHER CA INDEX NAMES:  
CN Propionaldehyde (7CI, 8CI)  
OTHER NAMES:

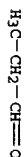
CN 1-Propanal  
CN 1-Propanone  
CN Ethylcarboxaldehyde  
CN Methylacetaldehyde  
CN n-Propanal  
CN n-Propionaldehyde  
CN NSC 6493  
CN Propionaldehyde  
CN Propional  
CN Propionic aldehyde  
CN Propylaldehyde  
CN Propylic aldehyde  
CN 3D CONCORD  
MF C3 H6 O  
CI COM  
LC STN Files: AGRICOLA, ANABSTR, AQUIRE, BELSTEIN\*, BIOBUSINESS, BIOSIS, BIOTECHNO, CA, CANCERLIT, CAOLD, CAPUS, CASREACT, CSNB, CEN, CHEMCATS, CHEMINFORMRX, CHEMLIST, CHEMSAFE, CIN, CSHEM, CSNB, DDFU, DETHERM\*, DIPPR\*, DRUGU, EMBASE, ENCOMPAT, ENCOMPAT2, ENCOMPAT, ENCOMPAT2, GEMLIN\*, HODOC\*, HSDB\*, IFICDB, IFIPAT, IFIUD, MEDLINE, MICK\*, MSDS-OHS, NAPRALERT, NIOSHTIC, PDLCOM\*, PIRA, PROMT, PS, RTECS\*, SPECINFO, SYNTHLINE, TOXCENTER, TULSA, UMDAT, USPAT2, USPATFULL, VTB  
(\*File contains numerically searchable property data)  
Other Sources: DSL\*\*, EINECS\*\*, TSCA\*\*

DT.CA CAPUS document type: Book; Conference; Dissertation; Journal; Patent;

RL.P Report  
Roles from patents: ANST (Analytical study); BIOL (Biological study); CMBI (Combinatorial study); FORM (Formation, nonpreparative); MSC (Miscellaneous); OCCU (Occurrence); PREP (Preparation); PROC (Process); PRP (Properties); RACT (Reactant or reagent); USES (Uses); NORL (No role in record)

RLD.P Roles for non-specific derivatives from patents: BIOL (Biological study); PREP (Preparation); PROC (Process); PRP (Properties); USES (Uses)

RL.NP Roles from non-patents: ANST (Analytical study); BIOL (Biological



study); CMBI (Combinatorial study); FORM (Formation, nonpreparative); MSC (Miscellaneous); OCCU (Occurrence); PREP (Preparation); PROC (Process); PRP (Properties); RACT (Reactant or reagent); USES (Uses); NORL (No role in record)

RLD.NP Roles for non-specific derivatives from non-patents: ANST (Analytical study); BIOL (Biological study); OCCU (Occurrence); PREP (Preparation); PROC (Process); PRP (Properties); RACT (Reactant or reagent); USES (Uses)

**\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\***

11425 REFERENCES IN FILE CA (1907 TO DATE)  
101 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA  
11443 REFERENCES IN FILE CAPUS (1907 TO DATE)  
1 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

L9 ANSWER 42 OF 46 REGISTRY COPYRIGHT 2004 ACS ON STN  
RN 106-94-5 REGISTRY  
CN Propane, 1-bromo- (8CI, 9CI) (CA INDEX NAME)  
OTHER NAMES:

CN 1-Bromopropane  
CN 1-Propyl bromide  
CN Acsuol MC  
CN Ictsol  
CN n-Propyl bromide  
CN Propyl bromide  
PS 3D CONCORD  
MF C3 H7 Br  
CI COM  
LC STN Files: ANABSTR, AQUIRE, BELSTEIN\*, BIOBUSINESS, BIOSIS, BIOTECHNO, CA, CANCERLIT, CAOLD, CAPUS, CASREACT, CSNB, CEN, CHEMCATS, CHEMINFORMRX, CHEMLIST, CHEMSAFE, CIN, CSHEM, CSNB, DETHERM\*, DIPPR\*, EMBASE, GEMLIN\*, HODOC\*, HSDB\*, IFICDB, IFIPAT, IFIUD, MEDLINE, MICK\*, MSDS-OHS, NAPRALERT, NIOSHTIC, PIRA, PROMT, PS, RTECS\*, SPECINFO, SYNTHLINE, TOXCENTER, USPAT2, USPATFULL, VTB  
(\*File contains numerically searchable property data)  
Other Sources: DSL\*\*, EINECS\*\*, TSCA\*\*

DT.CA CAPUS document type: Conference; Dissertation; Journal; Patent; Preprint; Report

RL.P Roles from patents: ANST (Analytical study); BIOL (Biological study); CMBI (Combinatorial study); FORM (Formation, nonpreparative); MSC (Miscellaneous); OCCU (Occurrence); PREP (Preparation); PROC (Process); PRP (Properties); RACT (Reactant or reagent); USES (Uses); NORL (No role in record)

RLD.P Roles for non-specific derivatives from patents: BIOL (Biological study); MSC (Miscellaneous); PREP (Preparation); PROC (Process); RACT (Reactant or reagent); USES (Uses)

RL.NP Roles from non-patents: ANST (Analytical study); BIOL (Biological study); CMBI (Combinatorial study); FORM (Formation, nonpreparative); MSC (Miscellaneous); OCCU (Occurrence); PREP (Preparation); PROC (Process); PRP (Properties); RACT (Reactant or reagent); USES (Uses)

RLD.NP Roles for non-specific derivatives from non-patents: PREP (Preparation); PROC (Process); PRP (Properties); RACT (Reactant or reagent); USES (Uses)



\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

3902 REFERENCES IN FILE CA (1907 TO DATE)  
42 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA  
3905 REFERENCES IN FILE CAPLUS (1907 TO DATE)  
5 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

L9 ANSWER 43 OF 46 REGISTRY COPYRIGHT 2004 ACS on STN  
RN 75-03-6 REGISTRY  
CN Ethane, Iodo- (8CI, 9CI) (CA INDEX NAME)  
OTHER NAMES:  
CN Ethyl iodide  
CN Hydriodic ether  
CN Iodoethane  
CN Moniodoethane  
CN NSC 8825  
FS 3D CONCORD  
MF C2 H5 I  
CI COM

LC STN Files: AGRICOLA, ANABSTR, BEILSTEIN\*, BIOBUSINESS, BIOSIS, BIOTECHNO, CA, CAOLD, CAPLUS, CASREACT, CSNB, CEN, CHEMCATS, CHEMINFORMRX, CHEMLIST, CIN, CSCHEM, CSNB, DETHERM\*, DIPR\*, EMBASE, ENCOMPLIT, ENCOMPLIT2, ENCOMPPAT, ENCOMPPAT2, GELIN\*, HODOC\*, IFICDB, IFIPAT, IFIUD, MEDLINE, MRCK\*, MSDS-OHS, NAPALERT, NIOSHTIC, PIRA, PROMT, PS, RTECS\*, SPECINFO, TOXCENTER, USPAT2, USPATFUL, VTB  
(\*File contains numerically searchable property data)  
Other Sources: DSL\*\*, EINRCS\*\*, TSCA\*\*

DT.CA Caplus document type: Conference; Dissertation; Journal; Patent; Preprint; Report

RL.P Roles from patents: ANST (Analytical study); BIOL (Biological study); OCCU (Occurrence); PREP (Preparation); PROC (Process); PRP (Properties); RACT (Reactant or reagent); USES (Uses); NORL (No role in record)

RLD.P Roles for non-specific derivatives from patents: BIOL (Biological study); PREP (Preparation); PROC (Process); PRP (Properties); RACT (Reactant or reagent); USES (Uses)

RL.NP Roles from non-patents: ANST (Analytical study); BIOL (Biological study); CMBI (Combinatorial study); FORM (Formation, nonpreparative); MSC (Miscellaneous); OCCU (Occurrence); PREP (Preparation); PROC (Process); PRP (Properties); RACT (Reactant or reagent); USES (Uses); NORL (No role in record)

H3C-CH<sub>2</sub>-I

\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

6442 REFERENCES IN FILE CA (1907 TO DATE)  
68 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA  
6450 REFERENCES IN FILE CAPLUS (1907 TO DATE)  
6 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

L9 ANSWER 44 OF 46 REGISTRY COPYRIGHT 2004 ACS on STN  
RN 74-96-4 REGISTRY  
CN Ethane, bromo- (8CI, 9CI) (CA INDEX NAME)  
OTHER NAMES:  
CN Bromic ether  
CN Bromoethane

CN Ethyl bromide  
CN F 16081  
CN Hydrobromic ether  
CN Monobromoethane  
CN NSC 8824  
FS 3D CONCORD  
MF C2 H5 Br  
CI COM

LC STN Files: AGRICOLA, ANABSTR, BEILSTEIN\*, BIOBUSINESS, BIOSIS, CA, CANCELLIT, CAOLD, CAPLUS, CASREACT, CSNB, CEN, CHEMCATS, CHEMINFORMRX, CHEMLIST, CHEMSAFE, CIN, CSCHEM, CSNB, DETHERM\*, DIPR\*, EMBASE, ENCOMPLIT, ENCOMPLIT2, ENCOMPPAT, ENCOMPPAT2, GELIN\*, HODOC\*, HSDB\*, IFICDB, IFIPAT, IFIUD, MEDLINE, MRCK\*, MSDS-OHS, NIOSHTIC, PDLCOM\*, PIRA, PROMT, PS, RTECS\*, SPECINFO, SYNTHLINE, TOXCENTER, TULSA, ULIDAT, USPAT2, USPATFUL, VTB  
(\*File contains numerically searchable property data)  
Other Sources: DSL\*\*, EINRCS\*\*, TSCA\*\*

DT.CA Caplus document type: Book; Conference; Dissertation; Journal; Patent; Preprint; Report

RL.P Roles from patents: ANST (Analytical study); BIOL (Biological study); FORM (Formation, nonpreparative); OCCU (Occurrence); PREP (Preparation); PROC (Process); PRP (Properties); RACT (Reactant or reagent); USES (Uses); NORL (No role in record)

RLD.P Roles for non-specific derivatives from patents: BIOL (Biological study); PREP (Preparation); PROC (Process); PRP (Properties); RACT (Reactant or reagent); USES (Uses)

RL.NP Roles from non-patents: ANST (Analytical study); BIOL (Biological study); CMBI (Combinatorial study); FORM (Formation, nonpreparative); MSC (Miscellaneous); OCCU (Occurrence); PREP (Preparation); PROC (Process); PRP (Properties); RACT (Reactant or reagent); USES (Uses); NORL (No role in record)

Br-CH<sub>2</sub>-CH<sub>3</sub>

\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

6356 REFERENCES IN FILE CA (1907 TO DATE)  
97 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA  
6358 REFERENCES IN FILE CAPLUS (1907 TO DATE)  
6 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

L9 ANSWER 45 OF 46 REGISTRY COPYRIGHT 2004 ACS on STN  
RN 74-88-4 REGISTRY  
CN Methane, Iodo- (8CI, 9CI) (CA INDEX NAME)  
OTHER NAMES:

CN Iodomethane  
CN Methyl iodide  
CN Methyl iodide (CH3I)  
CN Moniodomethane  
CN NSC 9366  
FS 3D CONCORD  
DR 147937-07-3  
MF C H3 I  
CI COM

LC STN Files: AGRICOLA, ANABSTR, BEILSTEIN\*, BIOBUSINESS, BIOSIS, BIOTECHNO, CA, CANCELLIT, CAOLD, CAPLUS, CASREACT, CSNB, CEN, CHEMCATS, CHEMINFORMRX, CHEMLIST, CHEMSAFE, CIN, CSCHEM, CSNB, DETHERM\*, DIPR\*, EMBASE, ENCOMPLIT, ENCOMPLIT2, ENCOMPPAT, ENCOMPPAT2, GELIN\*, HODOC\*,

HSDB\*, IFICDB, IFIPAT, IFIUD, MEDLINE, MRCK\*, MSDS-OHS, NAPALERT,  
NIOSHITC, PIDCOM\*, PIRA, PROMT, PS, RTECS\*, SPECINFO, TOXCENTER, TULSA,  
ULIDAT, USPAT2, USPATFUL, VTB  
(\*File contains numerically searchable property data)  
Other Sources: DSL\*\*, EINECS\*\*, TSCA\*\*

(\*Enter CHEMLIST file for up-to-date regulatory information)  
DT.CA Capius document type: Book; Conference; Dissertation; Journal; Patent;

RL.P Preprint; Report  
Roles from patents: ANST (Analytical study); BIOL (Biological study);  
CMBI (Combinatorial study); FORM (Formation, nonpreparative); MSC  
(Miscellaneous); OCCU (Occurrence); PREP (Preparation); PROC (Process);  
PRP (Properties); RACT (Reactant or reagent); USES (Uses); NORL (No role  
in record)

RDL.P Roles for non-specific derivatives from patents: ANST (Analytical  
study); BIOL (Biological study); PREP (Preparation); PROC (Process); PRP  
(Properties); RACT (Reactant or reagent); USES (Uses)  
Roles from non-patents: ANST (Analytical study); BIOL (Biological  
study); CMBI (Combinatorial study); FORM (Formation, nonpreparative);  
MSC (Miscellaneous); OCCU (Occurrence); PREP (Preparation); PROC  
(Process); PRP (Properties); RACT (Reactant or reagent); USES (Uses);  
NORL (No role in record)

RDL.NP Roles for non-specific derivatives from non-patents: ANST (Analytical  
study); BIOL (Biological study); FORM (Formation, nonpreparative); PREP  
(Preparation); PROC (Process); PRP (Properties); RACT (Reactant or  
reagent); USES (Uses)

H3C-I

\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

17991 REFERENCES IN FILE CA (1907 TO DATE)  
293 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA  
18016 REFERENCES IN FILE CAPIUS (1907 TO DATE)  
13 REFERENCES IN FILE CMOID (PRIOR TO 1967)

L9 ANSWER 46 OF 46 REGISTRY COPYRIGHT 2004 ACS on STN

CN Butanoic acid, 4-amino- (9CI) (CA INDEX NAME)

OTHER CA INDEX NAMES:  
CN Butyric acid, 4-amino- (7CI, 8CI)

OTHER NAMES:  
CN 7-Aminobutanoic acid

CN 7-Aminobutyric acid

CN 7-Aminobutyric acid

CN 7-Aminobutyric acid

CN 3-Carboxypropylamine

CN 4-Aminobutanoic acid

CN 4-Aminobutyric acid

CN 4-Aminobutyric acid

CN 4-Aminobutyric acid

CN 4-Aminobutyric acid

CN 4-Aminobutyric acid

CN 4-Aminobutyric acid

CN 4-Aminobutyric acid

CN 4-Aminobutyric acid

CN 4-Aminobutyric acid

CN 4-Aminobutyric acid

CN 4-Aminobutyric acid

CN 4-Aminobutyric acid

CN Piperidic acid

CN Piperidic acid

FS 3D CONCORD

DR 3111-86-0

MF C4 H9 N O2

CI COM

STN files: ADISNWS, AGRICOLA, ANABSTR, BELSTEIN\*, BIOBUSINESS, BIOSIS,

BIOECHO, CA, CABA, CANCERIT, CMOID, CAPIUS, CASEPACT, CNB, CN

CHEMATS, CHEMINFORMEX, CHEMLIST, CIN, CSCHEM, DDFU, DETERM\*, DRUG,

EMBASE, GEMELIN\*, HODOC\*, IFICDB, IFIPAT, IFIUD, IFA, MEDLINE, MRCK\*,

MSDS-OHS, NAPALERT, NIOSHITC, PROMT, PS, RTECS\*, SPECINFO, SYNTHLINE,

TOXCENTER, ULIDAT, USAN, USPAT2, USPATFUL, VETU

(\*File contains numerically searchable property data)  
Other Sources: DSL\*\*, EINECS\*\*, TSCA\*\*

(\*Enter CHEMLIST file for up-to-date regulatory information)  
DT.CA Capius document type: Book; Conference; Dissertation; Journal; Patent;

Report

Roles from patents: ANST (Analytical study); BIOL (Biological study);

CMBI (Combinatorial study); FORM (Formation, nonpreparative); MSC

(Miscellaneous); OCCU (Occurrence); PREP (Preparation); PROC (Process);

PRP (Properties); RACT (Reactant or reagent); USES (Uses); NORL (No role

in record)

RDL.P Roles for non-specific derivatives from patents: ANST (Analytical

study); BIOL (Biological study); CMBI (Combinatorial study); MSC

(Miscellaneous); PREP (Preparation); PROC (Process); PRP (Properties);

RACT (Reactant or reagent); USES (Uses)

Roles from non-patents: ANST (Analytical study); BIOL (Biological

study); CMBI (Combinatorial study); FORM (Formation, nonpreparative);

MSC (Miscellaneous); OCCU (Occurrence); PREP (Preparation); PROC

(Process); PRP (Properties); RACT (Reactant or reagent); USES (Uses);

NORL (No role in record)

RDL.NP Roles for non-specific derivatives from non-patents: ANST (Analytical

study); BIOL (Biological study); FORM (Formation, nonpreparative); OCCU

(Occurrence); PREP (Preparation); PROC (Process); PRP (Properties); RACT

(Reactant or reagent); USES (Uses)

H2N-(CH2)3-CO2H

\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

26488 REFERENCES IN FILE CA (1907 TO DATE)  
453 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA  
26518 REFERENCES IN FILE CAPIUS (1907 TO DATE)  
1 REFERENCES IN FILE CMOID (PRIOR TO 1967)

=> D HIS

(FILE 'HOME' ENTERED AT 10:43:22 ON 08 SEP 2004)

FILE 'REGISTRY' ENTERED AT 10:43:34 ON 08 SEP 2004

STRUCTURE UPLOADED

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L2 7 S L1 SSS FULL

L3 2 S L3

FILE 'CAPIUS' ENTERED AT 10:44:26 ON 08 SEP 2004

FILE 'REGISTRY' ENTERED AT 10:47:42 ON 08 SEP 2004

STRUCTURE UPLOADED

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L6 0 S L5 SSS FULL

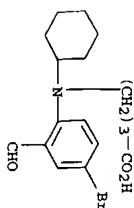
L7 0 S L5 SSS FULL

FILE 'CAPLUS' ENTERED AT 10:50:41 ON 08 SEP 2004  
 1 S 2001:185710/AN  
 SEL RN

FILE 'REGISTRY' ENTERED AT 10:52:01 ON 08 SEP 2004  
 46 S E1-E46

=> D 3

L9 ANSWER 3 OF 46 REGISTRY COPYRIGHT 2004 ACS on STN  
 RN 329347-33-3 REGISTRY  
 CN Butanoic acid, 4-[(4-bromo-2-formylphenyl)cyclohexylamino] - (9CI) (CA  
 INDEX NAME)  
 FS 3D CONCORD  
 MF C17 H22 Br N O3  
 SR CA  
 LC STN Files: CA, CAPLUS  
 DT, CA Caplus document type: Patent  
 RI, P Roles from patents: PREP (Preparation); RACT (Reactant or reagent)



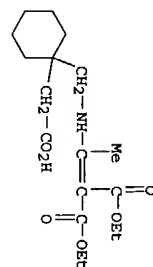
\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

1 REFERENCES IN FILE CA (1907 TO DATE)  
 1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

=> D L3

L3 ANSWER 1 OF 7 REGISTRY COPYRIGHT 2004 ACS on STN  
 RN 478297-17-5 REGISTRY  
 CN Propanedioic acid, [1-[[[1-(carboxymethyl)cyclohexyl]methyl]amino]ethylide  
 ne]-, 1,3-diethyl ester, compd. with piperidine (1:1) (9CI) (CA INDEX  
 NAME)  
 MF C18 H29 N O6 . C5 H11 N  
 SR CA  
 LC STN Files: CA, CAPLUS, TOXCENTER, USPATFULL  
 DT, CA Caplus document type: Patent  
 RI, P Roles from patents: BIOL (Biological study); PREP (Preparation); USES  
 (Uses)

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 CRN 478297-16-4  
 CMF C18 H29 N O6

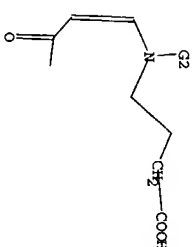


CM 2  
 CRN 110-89-4  
 CMF C5 H11 N



2 REFERENCES IN FILE CA (1907 TO DATE)  
 2 REFERENCES IN FILE CAPLUS (1907 TO DATE)

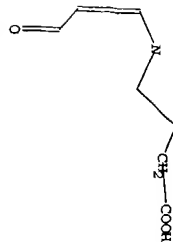
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 L5 HAS NO ANSWERS  
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 G2 C, S

Structure attributes must be viewed using STN Express query preparation.

=> D L1  
 L1 HAS NO ANSWERS  
 STR



G1 N, P, X, CF2, CF3, CCl2, CCl3, CBr2, CBr3, Cl2, Cl3, CN, NO2, Cy  
G2 C, S

Structure attributes must be viewed using STN Express query preparation.

=> FILE REG  
COST IN U.S. DOLLARS  
FULL ESTIMATED COST  
DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)  
CA SUBSCRIBER PRICE

SINCE FILE ENTRY	TOTAL SESSION	SINCE FILE ENTRY	TOTAL SESSION
94.20	422.49	0.00	-1.40

FILE 'REGISTRY' ENTERED AT 11:05:13 ON 08 SEP 2004  
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.  
PLEASE SEE "HELP USAGETERMS" FOR DETAILS.  
COPYRIGHT (C) 2004 American Chemical Society (ACS)

Property values tagged with IC are from the ZIC/VINITI data file provided by InfoChem.

STRUCTURE FILE UPDATES: 7 SEP 2004 HIGHEST RN 741217-26-5  
DICTIONARY FILE UPDATES: 7 SEP 2004 HIGHEST RN 741217-26-5

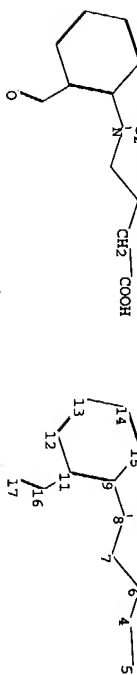
TSCA INFORMATION NOW CURRENT THROUGH MAY 21, 2004

Please note that search-term pricing does apply when conducting SmartSELECT searches.

Crossover limits have been increased. See HELP CROSSOVER for details.

Experimental and calculated property data are now available. For more information enter HELP PROP at an arrow prompt in the file or refer to the file summary sheet on the web at:  
<http://www.cas.org/ONLINE/DBSS/registries.html>

=> Uploading C:\Program Files\Stnexp\Queries\DIHYDROAZEPINE.str



chain nodes :

4 5 10 16 17  
ring nodes :  
9 11 12 13 14 15  
ring/chain nodes :  
6 7 8  
chain bonds :  
4-5 4-6 6-7 7-8 8-9 8-10 11-16 16-17  
ring bonds :  
9-11 9-15 11-12 12-13 13-14 14-15  
exact/norm bonds :  
7-8 8-9 8-10 16-17  
exact bonds :  
4-5 4-6 6-7 11-16  
normalized bonds :  
9-11 9-15 11-12 12-13 13-14 14-15

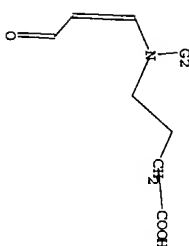
G1 N, P, X, CF2, CF3, CCl2, CCl3, CBr2, CBr3, Cl2, Cl3, CN, NO2, Cy

G2 C, S

Match level :  
4:CLASS 5:CLASS 6:CLASS 7:CLASS 8:CLASS 9:CLASS 10:CLASS 11:Atom 12:Atom  
13:Atom 14:Atom 15:Atom 16:CLASS 17:CLASS

L10 STRUCTURE UPLOADED

=> D L10  
L10 HAS NO ANSWERS  
L10 STR



G1 N, P, X, CF2, CF3, CCl2, CCl3, CBr2, CBr3, Cl2, Cl3, CN, NO2, Cy  
G2 C, S

Structure attributes must be viewed using STN Express query preparation.

=> S L10  
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SAMPLE SCREEN SEARCH COMPLETED - 405 TO ITERATE  
100.0% PROCESSED 405 ITERATIONS  
SEARCH TIME: 00.00.01  
FULL FILE PROJECTIONS: ONLINE \*\*COMPLETE\*\*  
PROJECTED ITERATIONS: BATCH \*\*COMPLETE\*\*  
PROJECTED ANSWERS: 6893 TO 9307  
0 TO 0  
0 ANSWERS

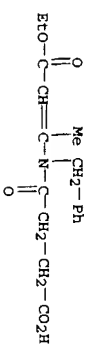
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=> S L10 SSS FULL  
FULL SEARCH INITIATED 11:05:40 FILE 'REGISTRY'  
FULL SCREEN SEARCH COMPLETED - 8024 TO ITERATE  
100.0% PROCESSED 8024 ITERATIONS  
SEARCH TIME: 00.00.01

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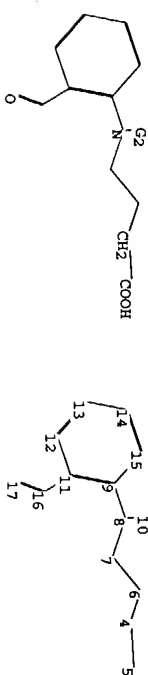
=> D

L12 ANSWER 1 OF 1 REGISTRY COPYRIGHT 2004 ACS ON STN  
RN 115398-14-6 REGISTRY  
CN 2-Butenoic acid, 3-[(3-carboxy-1-oxopropyl) (phenylmethyl) amino]-, 1-ethyl  
ester (9CI) (CA INDEX NAME)  
FS 3D CONCORD  
MF C17 H21 N O5  
SR CA  
IC STN Files: CA, CAPLUS, CASREACT  
DT.CA Caplus document type: Journal  
RL.NP Roles from non-patents: PREP (Preparation)



\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*  
1 REFERENCES IN FILE CA (1907 TO DATE)  
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

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Chain nodes :  
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ring nodes :  
9 11 12 13 14 15  
ring/chain nodes :  
6 7 8  
chain bonds :  
4-5 4-6 6-7 7-8 8-9 8-10 11-16 16-17  
ring bonds :  
9-11 9-15 11-12 12-13 13-14 14-15  
exact/norm bonds :  
7-8 8-9 8-10 16-17  
exact bonds :  
4-5 4-6 6-7 11-16

normalized bonds :  
9-11 9-15 11-12 12-13 13-14 14-15

G1:N,P,X,CF2,CF3,CCl2,CCl3,CBr2,CBr3,Cl2,Cl3,CN,NO2,Cy

G2:C,S

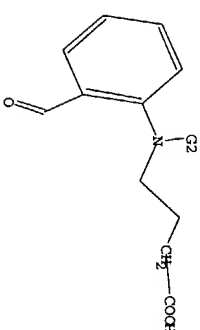
Match level :

4:CLASS 5:CLASS 6:CLASS 7:CLASS 8:CLASS 9:CLASS 10:CLASS 11:Atom 12:Atom  
13:Atom 14:Atom 15:Atom 16:CLASS 17:CLASS

L13 STRUCTURE UPLOADED

=> D L13

L13 HAS NO ANSWERS  
L13 STR



G1 N,P,X,CF2,CF3,CCl2,CCl3,CBr2,CBr3,Cl2,Cl3,CN,NO2,Cy  
G2 C,S

Structure attributes must be viewed using STN Express query preparation.

=> S L13  
SAMPLE SEARCH INITIATED 11:08:11 FILE 'REGISTRY'  
SAMPLE SCREEN SEARCH COMPLETED - 11 TO ITERATE  
100.0% PROCESSED 11 ITERATIONS  
SEARCH TIME: 00.00.01 0 ANSWERS

FULL FILE PROJECTIONS: ONLINE \*\*COMPLETE\*\*  
PROJECTED ITERATIONS: BATCH \*\*COMPLETE\*\*  
PROJECTED ANSWERS: 22 TO 418  
0 TO 0

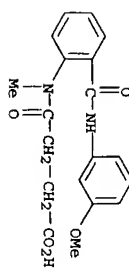
L14 0 SEA SSS SAM L13

=> S L13 SSS FULL  
FULL SEARCH INITIATED 11:08:17 FILE 'REGISTRY'  
FULL SCREEN SEARCH COMPLETED - 159 TO ITERATE  
100.0% PROCESSED 159 ITERATIONS  
SEARCH TIME: 00.00.01 16 ANSWERS

L15 16 SEA SSS FUL L13

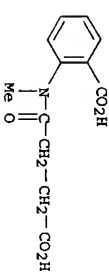
=> D 1-16

L15 ANSWER 1 OF 16 REGISTRY COPYRIGHT 2004 ACS on STN  
 RN 730976-62-2 REGISTRY  
 CN Butanoic acid, 4-[[2-[(3-methoxyphenyl)amino]carbonyl]phenyl]methylamino]-4-oxo- (9CI) (CA INDEX NAME)  
 FS 3D CONCORD  
 MF C19 H20 N2 O5  
 SR Chemical library



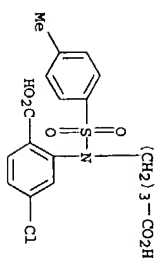
\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

L15 ANSWER 2 OF 16 REGISTRY COPYRIGHT 2004 ACS on STN  
 RN 401941-15-9 REGISTRY  
 CN Benzoic acid, 2-[(3-carboxy-1-oxopropyl)methylamino]- (9CI) (CA INDEX NAME)  
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 CN NSC 686141  
 FS 3D CONCORD  
 MF C12 H13 N O5  
 SR Chemical library  
 LC STN files: CHEMCATS



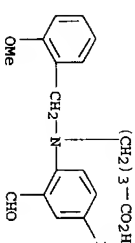
\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

L15 ANSWER 3 OF 16 REGISTRY COPYRIGHT 2004 ACS on STN  
 RN 351004-15-4 REGISTRY  
 CN Benzoic acid, 2-[(3-carboxypropyl)[(4-methylphenyl)sulfonyl]amino]-4-chloro- (9CI) (CA INDEX NAME)  
 FS 3D CONCORD  
 MF C18 H18 Cl N O6 S  
 SR CAS Client Services



\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

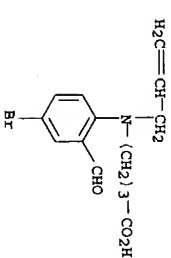
L15 ANSWER 4 OF 16 REGISTRY COPYRIGHT 2004 ACS on STN  
 RN 329347-35-5 REGISTRY  
 CN Butanoic acid, 4-[(4-bromo-2-formylphenyl)[(2-methoxyphenyl)methyl]amino]- (9CI) (CA INDEX NAME)  
 MF C19 H20 Br N O4  
 SR CA  
 LC STN files: CA, CAPLUS  
 DT.CA Caplus document type: Patent  
 RL.P Roles from patents: PREP (Preparation); RACT (Reactant or reagent)



\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

1 REFERENCES IN FILE CA (1907 TO DATE)  
 1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L15 ANSWER 5 OF 16 REGISTRY COPYRIGHT 2004 ACS on STN  
 RN 329347-34-4 REGISTRY  
 CN Butanoic acid, 4-[(4-bromo-2-formylphenyl)-2-propenylamino]- (9CI) (CA INDEX NAME)  
 MF C14 H16 Br N O3  
 SR CA  
 LC STN files: CA, CAPLUS  
 DT.CA Caplus document type: Patent  
 RL.P Roles from patents: PREP (Preparation); RACT (Reactant or reagent)

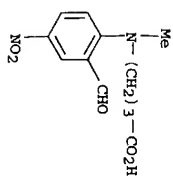




\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

1 REFERENCES IN FILE CA (1907 TO DATE)  
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

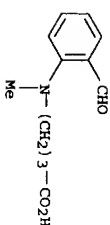
L15 ANSWER 6 OF 16 REGISTRY COPYRIGHT 2004 ACS on STN  
RN 329347-32-2 REGISTRY  
CN Butanoic acid, 4-[(2-formyl-4-nitrophenyl)methylamino] - (9CI) (CA INDEX NAME)  
FS 3D CONCORD  
MF C12 H14 N2 O5  
SR CA  
LC STN Files: CA, CAPLUS  
DT.CA Caplus document type: Patent  
RL.P Roles from patents: PREP (Preparation); RACT (Reactant or reagent)



\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

1 REFERENCES IN FILE CA (1907 TO DATE)  
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L15 ANSWER 7 OF 16 REGISTRY COPYRIGHT 2004 ACS on STN  
RN 329347-31-1 REGISTRY  
CN Butanoic acid, 4-[(2-formylphenyl)methylamino] - (9CI) (CA INDEX NAME)  
FS 3D CONCORD  
MF C12 H15 N O3  
SR CA  
LC STN Files: CA, CAPLUS  
DT.CA Caplus document type: Patent  
RL.P Roles from patents: PREP (Preparation); RACT (Reactant or reagent)



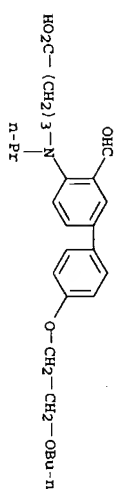
\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

1 REFERENCES IN FILE CA (1907 TO DATE)  
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L15 ANSWER 8 OF 16 REGISTRY COPYRIGHT 2004 ACS on STN  
RN 329347-29-7 REGISTRY  
CN Butanoic acid, 4-[(4'-(2-butoxyethoxy)-3-formyl[1,1'-biphenyl])-4-

yl]propylamino] - (9CI) (CA INDEX NAME)

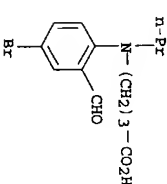
MF C26 H35 N O5  
SR CA  
LC STN Files: CA, CAPLUS  
DT.CA Caplus document type: Patent  
RL.P Roles from patents: PREP (Preparation); RACT (Reactant or reagent)



\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

1 REFERENCES IN FILE CA (1907 TO DATE)  
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

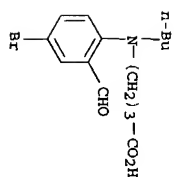
L15 ANSWER 9 OF 16 REGISTRY COPYRIGHT 2004 ACS on STN  
RN 329347-27-5 REGISTRY  
CN Butanoic acid, 4-[(4-bromo-2-formylphenyl)propylamino] - (9CI) (CA INDEX NAME)  
MF C14 H18 Br N O3  
SR CA  
LC STN Files: CA, CAPLUS  
DT.CA Caplus document type: Patent  
RL.P Roles from patents: PREP (Preparation); RACT (Reactant or reagent)



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1 REFERENCES IN FILE CA (1907 TO DATE)  
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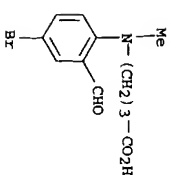
L15 ANSWER 10 OF 16 REGISTRY COPYRIGHT 2004 ACS on STN  
RN 329347-25-3 REGISTRY  
CN Butanoic acid, 4-[(4-bromo-2-formylphenyl)butylamino] - (9CI) (CA INDEX NAME)  
MF C15 H20 Br N O3  
SR CA  
LC STN Files: CA, CAPLUS  
DT.CA Caplus document type: Patent  
RL.P Roles from patents: PREP (Preparation); RACT (Reactant or reagent)



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1 REFERENCES IN FILE CA (1907 TO DATE)  
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

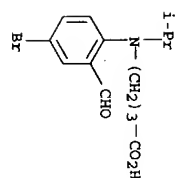
L15 ANSWER 11 OF 16 REGISTRY COPYRIGHT 2004 ACS on STN  
RN 32347-22-0 REGISTRY  
CN Butanoic acid, 4-[(4-bromo-2-formylphenyl)methylamino] - (9CI) (CA INDEX NAME)  
FS 3D CONCORD  
MF C12 H14 Br N O3  
SR CA  
LC STN Files: CA, CAPLUS, CASREACT  
DT,CA Caplus document type: Patent  
RL,P Roles from patents: PREP (Preparation); RACT (Reactant or reagent)



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1 REFERENCES IN FILE CA (1907 TO DATE)  
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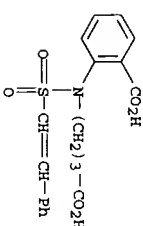
L15 ANSWER 12 OF 16 REGISTRY COPYRIGHT 2004 ACS on STN  
RN 31337-28-9 REGISTRY  
CN Butanoic acid, 4-[(4-bromo-2-formylphenyl)(1-methylethyl)amino] - (9CI) (CA INDEX NAME)  
FS 3D CONCORD  
MF C14 H18 Br N O3  
SR CA  
LC STN Files: CA, CAPLUS  
DT,CA Caplus document type: Patent  
RL,P Roles from patents: PREP (Preparation); RACT (Reactant or reagent)



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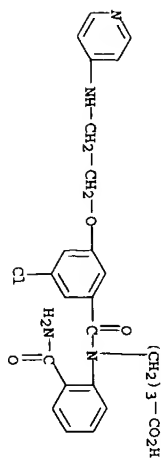
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3 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L15 ANSWER 13 OF 16 REGISTRY COPYRIGHT 2004 ACS on STN  
RN 300375-50-2 REGISTRY  
CN Benzoic acid, 2-[(3-carboxypropyl)[(2-phenylethyl)sulfonyl]amino] - (9CI) (CA INDEX NAME)  
FS 3D CONCORD  
MF C19 H19 N O6 S  
SR Chemical Library  
LC STN Files: CHEMCATS



\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

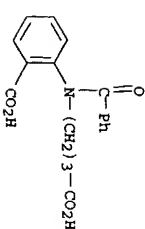
L15 ANSWER 14 OF 16 REGISTRY COPYRIGHT 2004 ACS on STN  
RN 192806-33-0 REGISTRY  
CN Butanoic acid, 4-[(2-(aminocarbonyl)phenyl)[3-chloro-5-(2-(4-pyridinylamino)ethoxy)benzoyl]amino] - (9CI) (CA INDEX NAME)  
FS 3D CONCORD  
MF C25 H25 Cl N4 O5  
SR CA  
LC STN Files: CA, CAPLUS, USPTAFUL  
DT,CA Caplus document type: Patent  
RL,P Roles from patents: BIOL (Biological study); PREP (Preparation); USES (Uses)



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1 REFERENCES IN FILE CA (1907 TO DATE)  
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

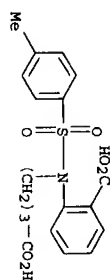
L15 ANSWER 15 OF 16 REGISTRY COPYRIGHT 2004 ACS ON STN  
RN 107520-71-8 REGISTRY  
CN Anthranilic acid, N-benzoyl-N-(3-carboxypropyl)- (6CI) (CA INDEX NAME)  
FS 3D CONCORD  
MF C18 H17 N O5  
SR CAOLD  
LC STN Files: BELISTEIN\*, CA, CAOLD, CAPLUS  
DT CA Caplus document type: Journal (No role in record)  
RL NP Roles from non-patents: NORL (No role in record)



\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

1 REFERENCES IN FILE CA (1907 TO DATE)  
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)  
1 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

L15 ANSWER 16 OF 16 REGISTRY COPYRIGHT 2004 ACS ON STN  
RN 101730-78-3 REGISTRY  
CN Anthranilic acid, N-(3-carboxypropyl)-N-p-tolylsulfonyl- (6CI) (CA INDEX NAME)  
FS 3D CONCORD  
MF C18 H19 N O6 S  
SR CAOLD  
LC STN Files: BELISTEIN\*, CA, CAOLD, CAPLUS, CHEMCATS  
DT CA Caplus document type: Journal  
RL NP Roles from non-patents: NORL (No role in record)



\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

1 REFERENCES IN FILE CA (1907 TO DATE)  
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)  
1 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

=> FILE CAPLUS  
COST IN U.S. DOLLARS  
FULL ESTIMATED COST  
DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)  
CA SUBSCRIBER PRICE  
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0.00	-1.40

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FILE COVERS 1907 - 8 SEP 2004 VOL 141 ISS 11  
FILE LAST UPDATED: 7 SEP 2004 (20040907/ED)

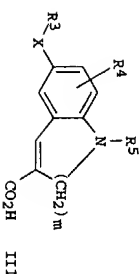
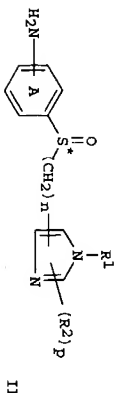
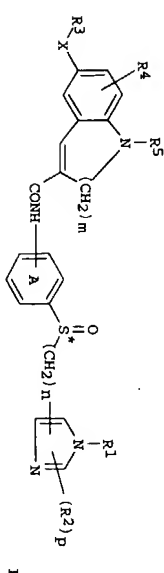
This file contains CAS Registry Numbers for easy and accurate substance identification.

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=> S L15  
L17 6 L15  
=> D 1-6 IBIB ABS HITSTR  
L17 ANSWER 1 OF 6 CAPLUS COPYRIGHT 2004 ACS ON STN  
ACCESSION NUMBER:  
DOCUMENT NUMBER:  
TITLE:  
INVENTOR(S):  
PATENT ASSIGNEE(S):

Process for producing optically active imidazolyalyl acylaminophenyl sulfoxide derivative  
Tawada, Hiroyuki; Ikemoto, Tomomi; Nishiguchi, Atsuko;  
Ito, Tatsuya; Adachi, Mari  
Takeda Chemical Industries, Ltd., Japan

SOURCE: PCT Int. Appl., 103 pp.  
 DOCUMENT TYPE: CODEN: PIXX2  
 LANGUAGE: Patent  
 FAMILY ACC. NUM. COUNT: 2  
 PATENT INFORMATION: Japanese

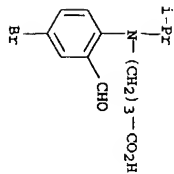
PATENT NO. KIND DATE APPLICATION NO. DATE  
 WO 2003076411 A1 20030918 WO 2003-JP2840 20030311  
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 RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GN, GT, GW, ML, MR, NE, SN, TD, TG  
 A2 20040422 JP 2003-65258 20030311  
 JP 2004123694 JP 2002-66809 A 20020312  
 PRIORITY APPL. INFO.: A 20020807  
 OTHER SOURCE(S): MARPAT 139:246034



AB Disclosed is a process for producing an optically active imidazolyalkyl acylaminophenyl sulfoxide derivative (I) [wherein R1 = (un)substituted aliphatic hydrocarbon or aromatic group; R2 = halo, NO2, cyano, each (un)substituted alkyl, cycloalkyl, HO, NH2, acyl, or aromatic group, CO2H or its ester, (un)substituted SH, sulfinyl, or sulfonyl; the ring A = benzene ring]

optionally substituted by halo, Cl-4 alkyl, Cl-4 haloalkyl, Cl-4 alkoxy, Cl-4 haloalkoxy; n = an integer of 0-3; p = an integer of 0-2; \* denotes an a.s.m. center; R3 = 5 or 6-membered ring; R4 = H, halo each (un)substituted lower alkyl or lower alkoxy; R5 = H, each (un)substituted hydrocarbon, aromatic group, sulfonyl, or acyl, CO2H or its ester or amide; X = a bond, a divalent group consisting of 1-4 atoms in the straight chain portion or a salt thereof, which comprises reacting an imidazolyalkyl aminophenyl sulfoxide derivative (II; R1, R2, the ring A, n, p, \* = same as above) with a benzotriazacycloalkenecarboxylic acid derivative (III; R3-R5, m, X = same as above) or its salt or reactive derivative. This process does not cause side reactions such as racemization and Fumene rearrangement and is industrially advantageous for the preparation of the title compds. which have CCR5 antagonistic activity (no data). Thus, 27.9 mL Et3N was added dropwise to a solution of 12.5 g 4-aminobenzeneethiol in 180 mL THF, followed by adding dropwise 28.2 mL trifluoroacetic anhydride at 0-10°, and the resulting mixture was stirred at 0-5° for 0.5 h, treated with 30 mL tap water, and stirred at room temperature for 0.5 h to give, after workup and crystallization from n-hexane, 26.1 g 2,2,2-trifluoro-N-(4-mesopropenyl)acetamide (IV). Et3N (29.0 mL) was added to a solution of 24.8 g IV in 99 mL MeOH, followed by adding a solution of 20.4 g 5-(chloromethyl)-1H-imidazole hydrochloride in 21 mL H2O at 0-20°, and the resulting mixture was stirred at 20-30° for 0.5 h to give, after workup and crystallization from 180-Pr ether, 73% 2,2,2-trifluoro-N-(4-[(1-propyl-1H-imidazol-5-yl)methyl]thio)phenyl)acetamide (V). 30% Aqueous H2O2 (16.4 g) was added to a solution of 33.1 g V in 49.7 mL at 2-30°, stirred at the same temperature for 3 h and treated with 330 mL EtOAc, followed by adding 35.9 g Na2S2O3.5 H2O at 0-10° and then dropwise 144.6 mL 6 N aqueous NaOH, and the resulting mixture was stirred at the same temperature for 0.5 h to give, after workup, 2,2,2-trifluoro-N-(4-[(1-propyl-1H-imidazol-5-yl)methyl]thio)phenyl)acetamide which was dissolved in 198.6 mL MeOH, treated with a solution of 40.0 g K2CO3 in 99.3 mL H2O and stirred at 50° for 2.5 h to give, after workup including decolorization with activated charcoal and crystallization from EtOAc, 73% 4-[(1-propyl-1H-imidazol-5-yl)methyl]thio)phenylamine (VI). H2O (90 mL) was added dropwise to a solution of 15.1 g di-p-toluenyl-D-tartaric acid (VII) and 10.3 g VI in 1,2-dimethoxyethane and stirred at room temperature overnight, followed by filtration of the precipitated crystals, washing with 50% by volume aqueous 1,2-dimethoxyethane (30 mL), vacuum-drying, recrystn. from aqueous MeCN, and vacuum-drying to give, 41.6% (-)-VI. VI diastereomer salt (99.6% de). (-)-VI. VII diastereomer salt (5 g) was extracted with 3 N aqueous HCl and 20 mL EtOAc and the aqueous layer was treated with 5 mL EtOAc 6 N aqueous NaOH to adjust pH at approx. 9, seeded with crystals, stirred at room temperature, and filtered to give 95.4% (-)-VI (1.88 g) as a white powder. A solution of 2.56 g 7-[4-(2-butoxyethoxy)phenyl]-1-isobutyl-2,3-dihydro-1H-1-benzazepine-4-carboxylic acid in 7.5 mL THF was treated with one drop of DMF and then dropwise with 0.56 mL oxalyl chloride at room temperature, and stirred for 1 h to give a solution of the acid chloride which was added dropwise to a solution of (-)-VI, similarly prepared from 5 g (-)-VI. VII diastereomer salt, in 17.5 mL THF and 2.85 mL Et3N at room temperature and stirred at room temperature for 1 h to give, after workup including treatment with silica gel and activated charcoal, and crystallization from ethanol-tert-Bu ether, 78% (-)-7-[4-(2-butoxyethoxy)phenyl]-1-isobutyl-N-[4-[(1-propyl-1H-imidazol-5-yl)methyl]thio)phenyl]-2,3-dihydro-1H-1-benzazepine-4-carboxamide. 313737-28-9p  
 RL: RCT (Reactant); SPN (Synthetic preparation); PEP (Preparation); RACT (Reactant or reagent) (preparation of optically active imidazolyalkyl acylaminophenyl sulfoxide derivative, by amidation of optically active imidazolyalkyl aminophenyl sulfonates) with benzotriazacycloalkenecarboxylic acids as CCR5 antagonists)  
 RN 313737-28-9 CAPUS

CN Butanoic acid, 4-[(4-bromo-2-formylphenyl)(1-methylethyl)amino] - (9CI)  
(CA INDEX NAME)



REFERENCE COUNT:

12 THERE ARE 12 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE REFORMAT

L17 ANSWER 2 OF 6 CAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER:  
2001:185710 CAPLUS

DOCUMENT NUMBER:  
134:222638

Process for the preparation of 2,3-dihydroazepine compounds

INVENTOR(S): Ikemoto, Tomomi; Ito, Tatsuya; Nishiguchi, Atsuko; Tomimatsu, Kiminori

PATENT ASSIGNEE(S): Takeda Chemical Industries, Ltd., Japan

SOURCE: PCT Int. Appl., 59 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

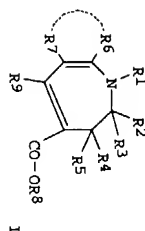
Japanese

LANGUAGE: Japanese

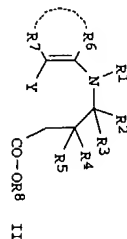
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PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2001017947	A1	20010315	WO 2000-JP6012	20000905
W: AB, AG, AL, AM, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CN, CR, CU, DE, DK, ES, FI, FR, GB, GR, GU, HK, IL, IN, IS, JP, KG, KR, KZ, LC, LX, LR, LT, LV, MA, MD, MG, MN, MX, MY, NZ, PL, PT, RO, RU, SG, SI, SK, ST, TM, TR, TT, UA, US, UZ, VN, YU, ZA, AM, AZ, BY, KG, KZ, MD, RU, TJ, TN, TW	A1	20010315	WO 2000-JP6012	20000905
RN: GH, GU, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, AT, BE, CH, CY, CZ, DE, DK, ES, FI, FR, GB, GR, GU, HK, IL, IN, IS, JP, KG, KR, KZ, LC, LX, LR, LT, LV, MA, MD, MG, MN, MX, MY, NZ, PL, PT, RO, RU, SG, SI, SK, ST, TM, TR, TT, UA, US, UZ, VN, YU, ZA, AM, AZ, BY, KG, KZ, MD, RU, TJ, TN, TW	A1	20010315	WO 2000-JP6012	20000905
CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG	A5	20010410	AU 2000-68706	20000905
AU 2000068706	A1	20020605	EP 2000-956925	20000905
EP 1211239	A1	20020605	EP 2000-956925	20000905
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AT	A1	20010605	JP 2000-275003	20000906
JP 2001151741	A2	20010605	JP 1999-252334	A 19990906
PRIORITY APPLN. INFO.:			WO 2000-JP6012	W 20000905
OTHER SOURCE(S):			CASREACT 134:222638; MARPAT 134:222638	
GI				



I



II

AB 2,3-dihydroazepine compds. I [R1 = (un) substituted hydrocarbon, etc.; R2 = R7 = H, halo, etc.; further details on R1 - R7 are given; R8 = (un) substituted hydrocarbon; R9 = H, (un) substituted hydrocarbon], useful as intermediates for CCR5 antagonists, are prepared by cyclization of esters II [R1 - R8 = as defined above; Y = COR9; R9 = as disclosed in this document. Intermediates for the preparation of II are also disclosed in this document. Thus, a mixture of Et 4-(4-bromo-2-formyl-N-methylanilino)butyrate, sodium ethoxide solution in ethanol, and di-Et carbonate was stirred at room temperature

for 4 h to give, after workup, 7-bromo-1-methyl-2,3-dihydro-1-benzazepine-4-carboxylic acid Et ester in 90% yield.

IT

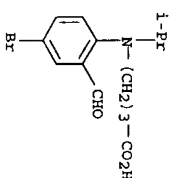
313737-28-9P 329347-22-0P 329347-25-3P  
329347-27-5P 329347-29-7P 329347-31-1P  
329347-32-2P 329347-34-4P 329347-35-5P

RU: IMF (Industrial manufacture); RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(process for preparation of 2,3-dihydroazepine compds.)

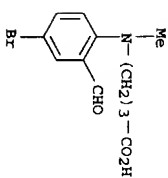
RN 313737-28-9 CAPLUS

CN Butanoic acid, 4-[(4-bromo-2-formylphenyl)(1-methylethyl)amino] - (9CI)  
(CA INDEX NAME)



RN 329347-22-0 CAPLUS

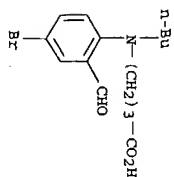
CN Butanoic acid, 4-[(4-bromo-2-formylphenyl)methylamino] - (9CI) (CA INDEX NAME)



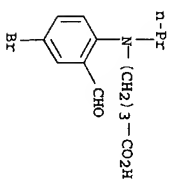
RN 329347-25-3 CAPLUS

CN Butanoic acid, 4-[(4-bromo-2-formylphenyl)butylamino] - (9CI) (CA INDEX NAME)

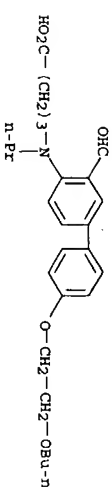
NAME)



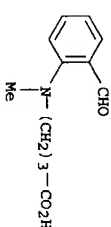
RN 329347-27-5 CAPLUS  
CN Butanoic acid, 4-((4-bromo-2-formylphenyl)propylamino) - (9CI) (CA INDEX NAME)



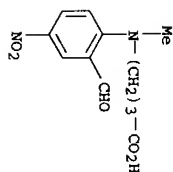
RN 329347-29-7 CAPLUS  
CN Butanoic acid, 4-((4'-((2-butoxyethoxy)-3-formyl[1,1'-biphenyl])-4-yl)propylamino) - (9CI) (CA INDEX NAME)



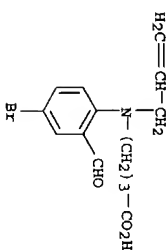
RN 329347-31-1 CAPLUS  
CN Butanoic acid, 4-((2-formylphenyl)methylamino) - (9CI) (CA INDEX NAME)



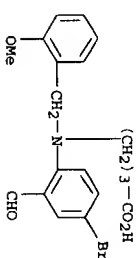
RN 329347-32-2 CAPLUS  
CN Butanoic acid, 4-((2-formyl-4-nitrophenyl)methylamino) - (9CI) (CA INDEX NAME)



RN 329347-34-4 CAPLUS  
CN Butanoic acid, 4-((4-bromo-2-formylphenyl)-2-propenylamino) - (9CI) (CA INDEX NAME)



RN 329347-35-5 CAPLUS  
CN Butanoic acid, 4-((4-bromo-2-formylphenyl)((2-methoxyphenyl)methyl)amino) - (9CI) (CA INDEX NAME)



REFERENCE COUNT:

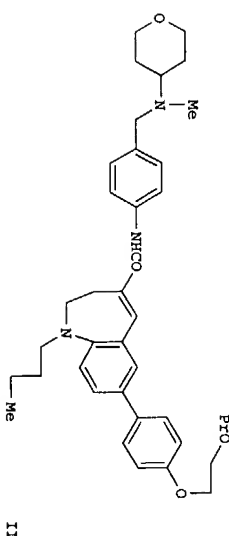
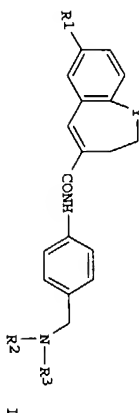
14

THERE ARE 14 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

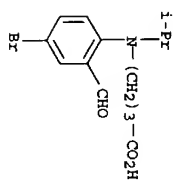
L17 ANSWER 3 OF 6 CAPLUS COPYRIGHT 2004 ACS on STN  
ACCESSION NUMBER: 2000:900630 CAPLUS  
DOCUMENT NUMBER: 134:56698  
TITLE: Preparation process and effect of benzazepine derivatives as CCR5 antagonists  
INVENTOR(S): Saitaishi, Mitsuru; Baba, Masanori; Aramaki, Yoshio; Kanazaki, Naoyuki; Nishimura, Osamu  
PATENT ASSIGNEE(S): Takeda Chemical Industries, Ltd., Japan  
SOURCE: PCT int. Appl., 342 pp.  
CODEN: PIKX2  
DOCUMENT TYPE: Patent  
LANGUAGE: Japanese  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE

WO 2000076993 A1 20001221 WO 2000-JP3879 20000615  
W: AE, AG, AU, AM, AU, AZ, BA, BB, BG, BR, BY, CA, CN, CR, CZ, DE, DM, DZ, EE, EG, GE, GR, GU, HR, HU, ID, IL, IN, IS, JP, KG, KR, KZ, LC, LK, LR, LT, LV, MA, MD, ME, MK, MN, MU, MY, NZ, NO, NZ, PL, RO, RU, SG, SI, SK, TJ, TM, TR, TT, UA, US, UZ, VN, YU, ZA, ZM, ZW, BY, KG, KZ, MD, RU, TJ, TM, SD, SE, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG 20000615  
EP 1186604 A1 20020313 EP 2000-939065 20000615  
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IR, SI, LT, LV, FI, RO 20010306 JP 2000-185904 20000616  
JP 2001058992 A2 20010306 JP 1999-170345 A 19990616  
PRIORITY APPLN. INFO.: WO 2000-JP3879 W 20000615  
OTHER SOURCE(S): MARPAT 134:56698  
GI

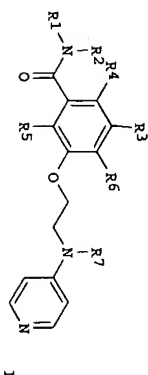


AB Title Comps. [I, R1 is a five- or six-membered aromatic ring which bears a substituent represented by the general formula: R21X22; R is hydrogen or optionally substituted hydrocarbyl; X is optionally substituted alkylene; and Z1 and Z2 are each a heteroatom and may be further substituted; with R being optionally bonded to the aromatic ring to form another ring; Y is optionally substituted imino; and R2 and R3 are each optionally substituted alicyclic hydrocarbyl or an optionally substituted hetero-aicyclic group] and salts, which exhibit CCR5 antagonism and exert preventive and therapeutic effects against HIV infections in mammal.  
Thus, the title compound II was prepared  
IT 313737-28-9P  
RU: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)  
RN 313737-28-9 CAPLUS  
CN Butanoic acid, 4-[(4-bromo-2-formylphenyl)(1-methylethyl)amino] - (9CI)  
(CA INDEX NAME)



REFERENCE COUNT: 11 THERE ARE 11 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT  
117 ANSWER 4 OF 6 CAPLUS COPYRIGHT 2004 ACS on STN  
ACCESSION NUMBER: 1997:503143 CAPLUS  
DOCUMENT NUMBER: 127:121643  
TITLE: Preparation of 5-[2-(pyridin-4-ylamino)ethoxy]benzamides as thrombin inhibitors  
INVENTOR(S): Watson, Nigel Stephen; Pass, Martin; Patel, Vipulkumar  
PATENT ASSIGNEE(S): Glaxo Group Limited, UK; Watson, Nigel Stephen; Pass, Martin; Patel, Vipulkumar  
SOURCE: PCT Int. Appl., 139 pp.  
CODEN: PIXXD2  
DOCUMENT TYPE: Patent  
LANGUAGE: English  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION: English

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9722589	A1	19970626	WO 1996-EP5743	19961213
W: AT, AM, AU, AV, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, FR, GB, GR, GU, HU, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MM, MU, MY, NZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, TJ, TM, TR, TT, UA, UG, UZ, VN, AM, AZ, BY, BG, KZ, MD, RU, TJ, TM, RW: KE, LS, MW, SD, SZ, UG, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GN, GU, ML, MR, NE, SN, TD, TG	A1	19970714	AU 1997-13030	19961213
AU 9713030	T2	20000328	JP 1997-522517	19961213
JP 2000503634	A1	20000726	EP 1996-944604	19961213
EP 1021411	B1	20030305		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO	A1	19970315	AT 1996-944604	19961213
AT 233733	E	20030315	ES 1996-944604	19961213
ES 2196197	T3	20031216	US 2000-678610	20001004
US 6326386	B1	20011204	GB 1995-25650	A 19951215
PRIORITY APPLN. INFO.: WO 1996-EP5743			WO 1996-EP5743	19961213
US 1996-77885	B1			19960612
OTHER SOURCE(S): MARPAT 127:121643				
GI				

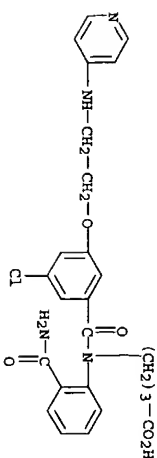


I

AB The title compds. [I; R1, R2 = XR8 (wherein X = a bond, Cl-6 alkylene, Cl-6 alkenylene, etc.; R8 = H, C3-7 cycloalkyl, aryl, etc.); R1R2 = (un)substituted C3-7 heterocycloalkyl, heterocycloalkenyl; R3 = H, Cl-3 alkyl, halo, Cl-2 alkoxy; R4-R6 = H, halo; R7 = H, Cl-6 alkyl] and their salts, useful as thrombin inhibitors, were prepared and formulated. Thus, reaction of 3-methyl-5-(2-(pyridin-4-ylamino)ethoxy)benzoic acid.CF3COOH with N-methylcyclohexylamine in the presence of HOBt, TBUT and DIPEA in DMF afforded I.CF3COOH [R1 = Me; R2 = cyclohexyl; R3 = Me; R4-R7 = H] which showed IC50 of 8 nM.

IT 192806-33-0P

RU: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BLOL (Biological study); PRBP (Preparation); USSES (Uses)  
[preparation of 5-(12-(pyridin-4-ylamino)ethoxy)benzamides as thrombin inhibitors]  
RU 192806-33-0 CAPLUS  
Buanoic acid, 4-[(12-(aminocarbonyl)phenyl)[3-chloro-5-(12-(4-pyridinylamino)ethoxy)benzoyl]amino] - (9CI) (CA INDEX NAME)



L17 ANSWER 5 OF 6 CAPLUS COPYRIGHT 2004 ACS on STM  
ACCESSION NUMBER: 1959:29140 CAPLUS  
DOCUMENT NUMBER: 53:29140  
ORIGINAL REFERENCE NO.: 53:5283C-1, 5284A-9  
TITLE: Structure and properties of certain polycyclic indolo and quinolino derivatives. XI. Derivatives of 4,5,6,7-tetrahydro-1-methyl-4-oxo-2,3-benzazepine  
AUTHOR(S): Braunholtz, John T.; Mann, Frederick G.  
CORPORATE SOURCE: Univ. Chem. Lab., Cambridge, UK  
JOURNAL OF THE CHEMICAL SOCIETY, Abstracts (1958)  
CODEN: JCSMAZ; ISSN: 0590-9791  
3377-86

DOCUMENT TYPE: Unavailable  
LANGUAGE: CASREACT 53:29140  
OTHER SOURCE(S): 4,5,6,7-tetrahydro-1-methyl-4-oxo-2,3-benzazepine (I) in its simple reactions resembles 1,2,3,4-tetrahydro-1-methyl-4-oxoquinoline (II), but its indolo (III) and quinolino derivs. (IV) differ markedly from those of I. The Fischer reaction with 1 phenylhydrazine (V) yields a true indole instead of a v-indole. The quinolino acid (VI) obtained by the

Piltzinger reaction does not show the marked resonance and deep color of the oxoquinolino derivative, and the corresponding base IV, obtained by decarboxylation of the acid or by direct application of the Friedlander reaction, does not undergo acid-catalyzed allylic rearrangement or ready oxidation to a cyclic amide. Dry HBr bubbled into absolute alc. at 0° until 100 g. absorbed, 67 g. γ-butyrolactone added, the mixture refluxed 4.5 hrs. and fractionally distilled gave 100 g. crude Br.(CH2)3CO2Et (VIII), b.p. 85-7°, n20D 1.451. Attempts to prepare the Me ester by analogous procedure were unsuccessful. VIII (100 g.) and 200 g. Me anthranilate (IX) heated 12 hrs. at 100°, the paste crystalline mass shaken with 400 cc. H2O to which excess NaHCO3 was gradually added, the mixture extracted with Et2O, dried, and distilled gave 150 g. unchanged IX, b.p. 115-20°, and 75 g. Me N-(3-ethoxycarbonylpropyl)anthranilate (X), b.p. 176-80°, m. 43.5° (13goline). X (5 g.) in 25 cc. aqueous alc. containing 7 g. KOH refluxed 1 hr., cooled, and acidified to pH 6 gave 3.9 g. diacid (XI), m. 190° (effervescence) (alc.); X (5 g.) in 20 cc. C6H5N treated gradually with 4.2 g. BrCl, heated 1 hr. at 50°, cooled, poured into 300 cc. H2O, the oil collected, washed, and fractionally distilled gave an almost quant. yield of Me N-benzoyl-N-(3-ethoxycarbonylpropyl)anthranilate (XII), b.p. 215-25°, m. 46° (Et2O-11goline). XII (1 g.) was quant. hydrolyzed by refluxing 45 min. in 50% aqueous alc. containing 2 g. KOH and acidifying to give N-benzoyl-N-(3-carboxypropyl)anthranilic acid (XIII), m. 175° (aqueous alc.). Unsuccessful attempts to form the 7-membered ring of the benzazepine system were made. (a) XI treated with Ac2O and KOAc under a variety of conditions. (b) XII in xylene refluxed 9 hrs. with Na gave no ketonic product. X (30 g.) and 45 g. MeI heated 4 hrs. at 90° in an autoclave, the cold product added to 100 cc. H2O and 50 cc. Et2O and treated with excess NaHCO3, the mixture extracted with Et2O, dried, and evaporated.

gave 18 g. Me N-(3-ethoxycarbonylpropyl)-N-methylanthranilate (XIV), b.p. 139°. In a typical Dieckmann cyclization a solution of 6 g. XIV in 35 cc. xylene added during 45 min. to a suspension of 1 g. Na in 120 cc. refluxing xylene under N, the refluxing continued 7-12 hrs., the excess Na decomposed, the xylene solution extracted with 6N HCl, the aqueous extract refluxed 45 min. in N, cooled, treated with NaHCO3, extracted with Et2O, and fractionally distilled gave 1.8 g. I, b.p. 112° which did not crystallize; it was stable for several weeks under normal conditions. When the above procedure was repeated using PhMe to replace xylene a yield of 42% I was obtained; using 1 g. atom Na in xylene containing a trace of MeOH and refluxing 10 hrs. the yield was 42%. The Dieckmann reaction with Na in anhydrous C6H6 containing a trace of MeOH gave 27% yield, and the use of NaH in dry C6H6 gave only traces of ketonic material. I (0.5 g.) in 5 cc. alc. containing 2 cc. H2O treated under reflux 2 hrs. with 0.35 H2NCONH2.HCl and NaOAc gave 0.5 g. I semicarbazone, m. 198° (alc.); 2,4-dinitrophenylhydrazine, m. 202-3°; V, viscous sirup which did not crystallize; HCl salt, m. 160-1° (decomposition) (alc.); picrate, not pure. All attempts to isolate crystalline products of condensation between the 5-CH2 group of I and p-Me2NC6H4CHO or p-ONC6H4NH2 failed; the former reagent gave no reaction, and the latter gave intractable tars. V (from 1.4 g. I) refluxed 8 hrs. in a mixture of saturated alc. HCl and alc., cooled 2 hrs. at 0°, and the product collected gave 2.1 g. 6,7-dihydro-1-methyl-2,3-benzindolo[2,3-f]azepine-HCl (XV), m. 225° (effervescence). An aqueous alc. solution of XV basified with 10% aqueous NaOH gave the free indolo compound (III), m. 119° (aqueous alc.). III is completely stable when exposed to air; a slow and partial oxidation occurs in hot Me2CO/NO4, but no pure derivative was isolated. III shows infrared absorption maximum at 3420 and 3380 and a shoulder at 2800 cm.-1. The similarity between the ultraviolet spectra of III in alc. and in alc. HCl accords with the protonation of the benzazepine-N atom rather than that of a v-indole. Unsuccessful attempts were also made to dehydrogenate III at the saturated 6,7-linkage, by reagents such as Pd-C or chloranil. Isatin (1.4 g.) and 1.7 g. KOH in 5 cc. H2O refluxed 10 hrs. with 1.4 g. I in 10 cc. alc. gave



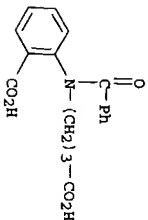
0.75 g. 6,7-dihydro-1-methyl-2,3-benzquinolino [2',3',4,5] azepine-4'-carboxylic acid (VI), m. 295° (slow effervescence). I (0.7 g.) in 10 cc. warm alc. treated with 0.5 g. o-H<sub>2</sub>NC<sub>6</sub>H<sub>4</sub>CHO and left at room temperature 1 week under N gave 0.8 g. 6,7-dihydro-1-methyl-2,3-benzquinolino [2',3',4,5]azepine (IV), m. 127° (aqueous alc.). IV distills smoothly in the sublimation tube at 300°/15 mm without change. VI heated in a tube at 0.002 mm. sublimed at 250-310° without residue. The yellow crystalline sublimate was identical with unchanged VI. In a similar experiment at 15 mm. a clear viscous orange distillate was obtained at 300°. This product was shown by infrared and chromatographic analysis to be almost pure IV contaminated with traces of VI. IV formed an unstable MeI salt, m. 210-11° (effervescence) (Me<sub>2</sub>CO containing a trace of MeOH); HCl salt, m. 194-6°; di-HCl salt, m. 200-5° (deep red melt). Attempts to effect the acid-catalyzed isomerization of IV gave the unchanged base or its HCl salt almost quantitatively after refluxing in dilute HCl for 4 hrs., or in concentrated HCl containing a small amount of dioxane. Identification was confirmed by infrared spectroscopy. IV (50 mg.) in 10 cc. Me<sub>2</sub>CO treated during 2 hrs. with an excess of saturated Me<sub>2</sub>CO-KMnO<sub>4</sub>, the solution refluxed until the color disappeared, cooled, filtered, the filtrate concentrated, filtered again, and cooled gave 50 mg. 6,7-dihydro-1-methyl-7-oxo-2,3-benzquinolino [2',3'-4,5]-azepine (XVI), m. 192-3° (aqueous alc.). XVI cannot be obtained at room temperature by atmospheric oxidation in C<sub>6</sub>H<sub>6</sub> or by KMnO<sub>4</sub> oxidation in Me<sub>2</sub>CO.

does not form a stable HCl salt and does not react with 2,4-dinitrophenylhydrazine. The disappearance of the N-Me infrared absorption band, the lack of ketonic properties, and the very low basic strength show that this oxidation product is the 7-oxo and not the 6-oxo isomer, which should be ketonic and should absorb in the 2800 cm.<sup>-1</sup> region. Infrared absorption due to the CO group occurs at 1660 cm.<sup>-1</sup>. The marked differences between the derivs. of I and II brought about solely by the insertion of one adnl. CH<sub>2</sub> group into the oxo aniline ring of II, are particularly interesting in connection with the structural features required to facilitate the allylic transformation.

IT 107520-71-8, Anthranilic acid, N-benzoyl-N-(3-carboxypropyl)- (preparation of)

RN 107520-71-8 CAPLUS

CN Anthranilic acid, N-benzoyl-N-(3-carboxypropyl)- (6CI) (CA INDEX NAME)



L17 ANSWER 6 OF 6 CAPLUS COPYRIGHT 2004 ACS ON STM

ACCESSION NUMBER: 1957:81531 CAPLUS

DOCUMENT NUMBER: 51:81531

ORIGINAL REFERENCE NO.: 51:14756h-1, 14757a-e

TITLE: Azabenzocycloheptenones. II. Dieckmann cyclization of arylamino esters

AUTHOR(S): Proctor, G. R.; Thomson, R. H.

CORPORATE SOURCE: Univ. Aberdeen, UK

SOURCE: Journal of the Chemical Society, Abstracts (1957) 2312-14

CODEN: JCSMAZ; ISSN: 0590-9791

DOCUMENT TYPE: Journal

LANGUAGE: Unavailable

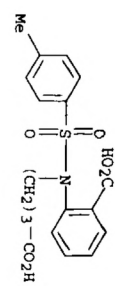
OTHER SOURCE(S): CASREACT 51:81531

AB Attempted acyloin reduction of Me N-(2-methoxycarbonyl)ethylanthranilate (I) gave 1,2,3,4-tetrahydro-3-methoxycarbonyl-4-quinolone (II). Dieckmann cyclization of Et<sub>2</sub>N-N-(2-methoxycarbonyl)phenyl-N-P-toluenesulfonyl azabenzocyclohepten-7-one (IV). Anthranilic acid (137 g.) refluxed 18 hrs. with 53 g. acrylonitrile, 20 ml. 40% KOH, and 50 ml. alc. gave 127 g. N-(2-cyanoethyl)anthranilic acid (V), needles, m. 169° (from alc.-H<sub>2</sub>O). V (40 g.) refluxed with 20% KOH until NH<sub>3</sub> ceased to evolve gave 95% N-(2-carboxyethyl)anthranilic acid (VI), m. 182° (from H<sub>2</sub>O); N-P-toluenesulfonyl derivative, needles, m. 188-9°. VI (46 g.) in 500 ml. MeOH refluxed with passage of HCl after 12 hrs. the mixture cooled to 0°, and poured into 20% NaOH gave 26.5 g. I, prisms, m. 16° (from ligroine), and 12 g. unchanged VI. In one experiment when passage of HCl was for 50 min. gave N-(2-methoxycarbonyl)ethylanthranilic acid, needles, m. 101° (from ligroine). I gave a monoester monamide, needles, m. 105° (from ligroine). V (230 g.) heated 43 hrs. with 208 g. MeOH and 136 ml. concentrated H<sub>2</sub>SO<sub>4</sub> and the residue distilled 180-90°/10 mm. Redistn. gave I as the principal fraction and the remainder fractionated at 83°/0.05 g. hydrolyzed gave 2-amino-3-methylbenzoic acid, m. 163.5° (from ligroine); HCl salt, needles, m. 175.5°; Me ester, bp. 0.05 83°, was diazotized and coupled with β-naphthol gave an azo derivative, needles, m. 179°. I (9.25 g.) refluxed 22 hrs. in 75 ml. C<sub>6</sub>H<sub>6</sub> containing 1.2 g. finely dispersed Na and 0.5 g. alc. and the product sublimed in vacuo gave 0.47 g. II, crystals, m. 113°; 2,4-dinitrophenylhydrazine, red needles, m. 221° (from EtOAc-ligroine); O,N-di-P-toluenesulfonyl derivative, needles, m. 136-7°. The residue after sublimation was an oil which gave 1,2,3,4-tetrahydro-4-quinolone 2,4-dinitrophenylhydrazine (VII), m. 260°. Hydrochloric acid hydrolysis of II also gave an oil which formed a 2,4-dinitrophenylhydrazine, m. 260°. I (10 g.) in 400 ml. xylene and added during 8.5 hrs. to a refluxing suspension of 5 g. Na in 200 ml. xylene, and the product distilled at 145°/0.05 mm. and identified as VII. The solid residue was sublimed to give 4.2 g. II. Me anthranilate (50 g.) with 80 g. P-tosyl chloride in 160 ml. C<sub>6</sub>H<sub>5</sub>SN gave 92 g. Me N-P-toluenesulfonyl anthranilate (VIII), prisms, m. 113° (from MeOH). VIII (75 g.), 48 g. Br(CH<sub>2</sub>)<sub>3</sub>CO<sub>2</sub>Et, 90 g. K<sub>2</sub>CO<sub>3</sub>, and 200 ml. Me<sub>2</sub>CO refluxed 24 hrs. gave 89 g. III, needles, m. 102-3° (from EtOAc-ligroine). Alkaline hydrolysis of III gave a diacid, needles, m. 229-31° (from aqueous alc.). K (2 g.) dispersed in 200 ml. C<sub>6</sub>H<sub>6</sub> while hot and 5.5 ml. tert-BuOH added, then during 2 hrs. a solution of 20 g. III in 200 ml. C<sub>6</sub>H<sub>6</sub> added with passage of N, the mixture refluxed a further 20 hrs. and the residue refluxed 1.5 hrs. with 90 ml. alc. and 50 ml. concentrated HCl giving an oil. This oil was purified by refluxing 0.5 hr. with aqueous NaOH or via its 2,4-dinitrophenylhydrazine (IX). IX (4 g.) 1.22 g. m-O<sub>2</sub>NC<sub>6</sub>H<sub>4</sub>CHO, 100 ml. BuOH, and 2 ml. concentrated HCl refluxed 40 hrs. gave needles, m. 126°. Alkaline hydrolysis gave 1.82 g. IV. IX obtained as needles, m. 236°. IV p-nitrobenzylidene derivative formed needles, m. 249-50° (from AcOH).

IT 101730-78-3, Anthranilic acid, N-(3-carboxypropyl)-N-P-tolylsulfonyl- (preparation of)

RN 101730-78-3 CAPLUS

CN Anthranilic acid, N-(3-carboxypropyl)-N-P-tolylsulfonyl- (6CI) (CA INDEX NAME)



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